

## INITIAL STUDY

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### MABURY PARK/PENITENCIA CREEK PARK CHAIN – REACH 6 MASTER PLAN



*Prepared for*

**City of San José  
Department of Public Works  
Parks and Recreation Facilities Division**

*Prepared by*

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**February 21, 2003**

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## CITY OF SAN JOSÉ - INITIAL STUDY

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### MABURY PARK/PENITENCIA CREEK PARK CHAIN – REACH 6 MASTER PLAN

#### SECTION I: DESCRIPTION OF PROJECT

##### A. General Information

1. Applicant: City of San José, Department of Public Works  
Parks and Recreation Facilities Division  
Project Manager: Jan Palajac  
Phone Number: (408) 794-1376
2. Name of Project: Mabury Park/Penitencia Creek Park Chain Reach 6  
Master Plan
3. Location

The Penitencia Creek Park Chain is located in the northeasterly section of Santa Clara County, California near the southern end of the San Francisco Bay (see Figure 1). The creek has been divided into 7 study areas by the City of San José. Reach 6 of the creek is a 29-acre lineal open space area that extends northeast of North King Road to a location 450 feet northeast of the intersection of North Jackson Avenue and Mossdale Way. This reach of the creek is owned by the City with the Santa Clara Valley Water District (SCVWD) holding an easement for flood control purposes. It is composed of six publicly owned parcels. Adjoining the northeast section of this reach is a vacant 3.2-acre flag shaped parcel owned by the City and designated for a future park. Together these seven properties compose the 32.2-acre project site (Figure 2).

The Mabury Park/Penitencia Creek Reach 6 project site is bordered by Cape Horn Drive and Commodore Drive to the north and is bordered to the southeast by the southerly edge of the creek riparian corridor and Mabury Road. Cape Horn Drive, Commodore Drive and intersecting streets are within a neighborhood dominated by single-family residential uses. Land east of North Jackson Avenue consists of multi-family and single-family residential uses and some large vacant parcels. Mabury Drive is a busy collector street that serves various land uses, including Independence High School and Penitencia Creek County Park. The roadway crosses Penitencia Creek in two locations. This creek crossing cuts off a 1,440-foot segment of Reach 6 from the remainder of the project site and thus, creates two breaks in the otherwise continuous riparian corridor (See Figure 2). Mabury Park is included within Reach 6. The 3.2-acre park site is bordered to the west by a vacant parcel, which is owned by the Berryessa School District. Reach 6 borders the northeastern edge of Penitencia Creek County Park and Independence High School. The completed project can provide a linkage between the high school, the county park, the park site and any future use on the vacant Berryessa School District parcel as well as connections to other reaches of the creek. The existing appearance of Reach 6 is an open space flood plain and riparian forest that supports a high level of wildlife such as waterfowl, fish and songbirds. The Mabury park site is outside of the floodplain. It is generally flat and without any trees or significant woody vegetation.

#### 4. Detailed Description of Project

The Mabury Park/Penitencia Creek Park Chain Reach 6 Master Plan was developed to provide a Master Plan that is consistent with the goals and objectives of the 1977 *Penitencia Creek Park Chain Master Plan* and the terms of the 1981 tri-party agreement, while adhering to current policies and regulations. (See section C.6). The resulting plan is intended to provide a realistic Master Plan that will accommodate the recreation, open space, flood protection, management and water conservation purposes as outlined in the *Mabury Park/Penitencia Creek Park Chain Reach 6 Park Master Plan Report* and public input on several design alternatives.

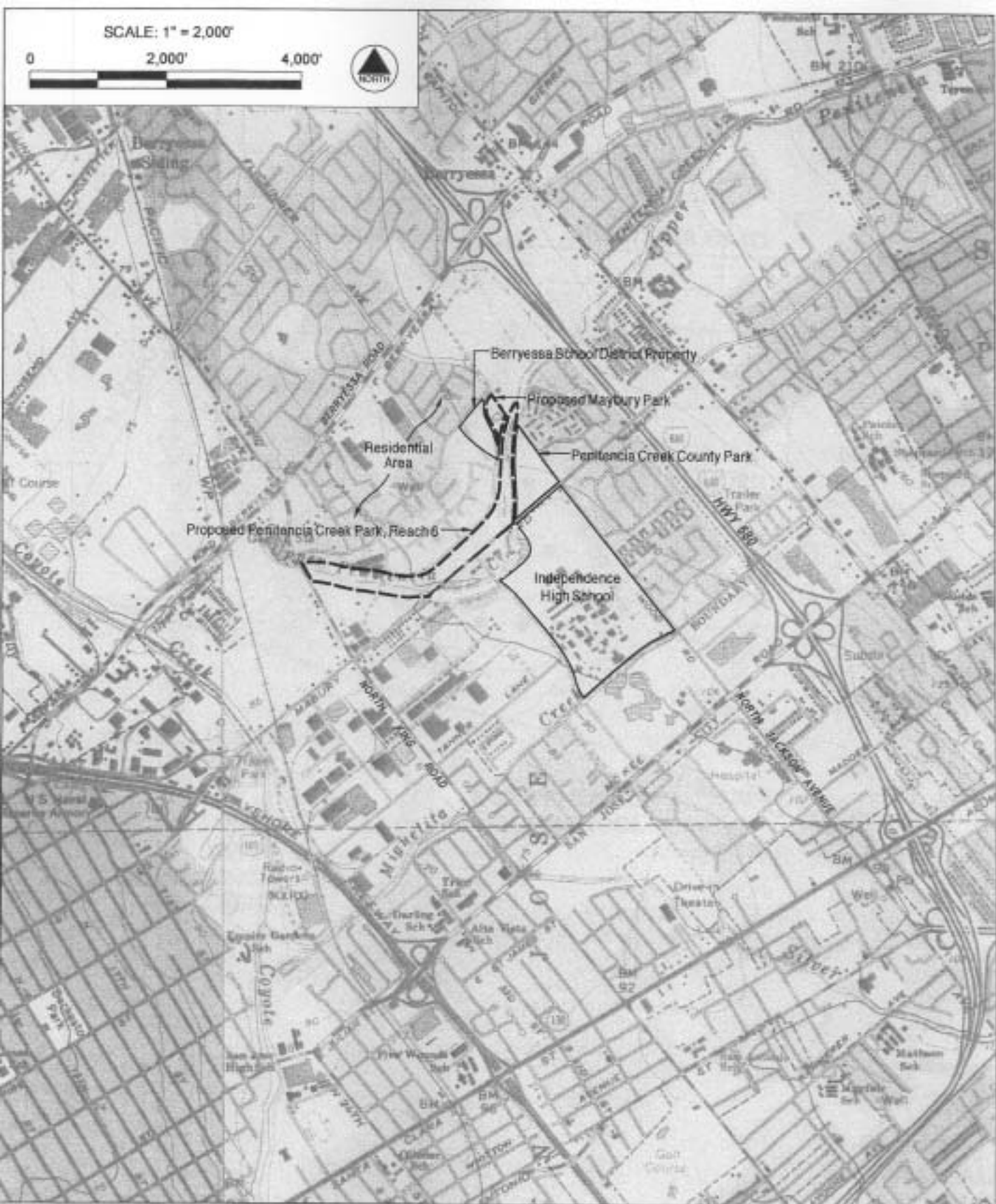
The Reach 6 Trail Plan identifies a three-phased plan to sequentially construct multi-use trails paralleling the creek and more active recreational facilities within the park. Phase 1 would utilize existing pedestrian facilities to the greatest degree feasible to provide a trail for immediate use by the public. It would be located along the southern edge of the reach and include the existing sidewalk along Mabury Road from Creekland Circle to Penitencia Creek County Park and an existing asphalt trail in the County Park. New trail construction would be limited to 1,160 lineal feet between North King Road and an existing five-foot wide asphalt path at Creekland Circle Townhomes. The new trail would connect to the existing five-foot wide asphalt path at Creekland Circle Townhomes, which would then connect to the existing five-foot wide sidewalk at Mabury Road. Some of this new construction will be on top of an existing unpaved maintenance road. Most of the Phase 1 trail alignment will be replaced by a more favorable alignment in Phase 2 which provides more separation from streets and a more pleasing trail use experience but will require more time to construct than with Phase 1. The Phase 2 trail will be constructed on the north side of Penitencia Creek. The Phase 3 alignment addresses the need to replace some of the Phase 2 trail route when a flood control by-pass channel is constructed by the U.S. Army Corps of Engineers and the SCVWD within the easement held by the SCVWD. It is not known when the by-pass channel will be built. Information from the SCVWD indicates it may be 10-25 years before the flood control project commences. The construction of the channel will displace the majority of the Phase 2 trail. A “post-flood control project trail” would then be constructed closer to Cape Horn Drive in the northeastern half of the reach and along the southern edge of the riparian canopy in the southwestern half of the reach as shown on the site plan. Segments of the Phase 2 trail that would not need to be displaced would be used for the final trail alignment, such as the segment of the trail along the southern edge of Mabury Park. If the by-pass channel is not constructed, there would not be a need to construct the Phase 3 trail alignment.

The segment of the Phase 1 trail that would require new construction is the western most section located between North King Road and the townhomes on Creekland Circle. A 5-foot wide asphalt path would be constructed to join with an existing 5-foot wide asphalt path adjoining the townhomes property.

The trail would continue eastward by using the existing sidewalk along Mabury Road and the existing asphalt path in the County Park. The trail would cross to the other side of North Jackson Avenue by using the sidewalk on that street north to its intersection with Commodore Drive, crossing the street at the crosswalk and following the existing sidewalk south to Mossdale Way before connecting to an existing asphalt

SCALE: 1" = 2,000'

0 2,000' 4,000'



## **Biotic Resources Group**

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**LOCATION MAP - Figure 1**  
**Mabury Park/Penitencia Creek Park Chain Reach 6**



PROJECT VICINITY MAP - Figure 2

NOT TO SCALE  
11/11/02

# Mabury Park/Penitencia Creek Park Chain Reach 6 City of San Jose

path along Mossdale Way. This is shown as the red colored route on the site plan (Figure 3).

The Phase 2 trail would consist of a 10-foot wide asphalt trail with a 5-foot wide shoulder for equestrians and a 2 foot wide shoulder for pedestrians consisting of decomposed granite would provide recreational access for pedestrians, bicyclists, and equestrians. More than half of this alignment is located just north of the creek's riparian forest canopy with the center segment adjoining Mabury Road. This segment will not use the sidewalk, as with the Phase 1 alignment, but rather will consist of a newly constructed trail that parallels the sidewalk. This phase is the site plan's blue colored route. The Phase 3 alignment would use segments of the Phase 2 trail that do not need to be displaced from the construction of the by-pass channel and join these retained segments with newly constructed trail. One of the new segments, the section along Cape Horn Drive, will be constructed on an existing dirt path. The trail would consist of the same asphalt and decomposed granite surfacing as occurs in Phase 2. The new segments of the Phase 3 alignment are shown as the black colored route.

Selected cross-sections of the proposed trail are provided in Attachment 1. Other than the trail construction described above, trail development will require the construction of six bridges to span either the creek or future by-pass channels. The bridges would all be constructed with the same design and would be approximately 10 feet in width. The six bridges would be constructed so they are elevated above the 100-year flood level of the creek. Four bridges will be installed prior to construction of the by-pass channel. Bridges #2 and #5 will be constructed after the flood control channel is constructed. Bridge #4 will be removed when the by-pass channel is built. These bridges are more precisely described as follows:

- § Bridge #1: This 30 foot long bridge would be located opposite the intersection of Cape Diamond and Cape Horn Drives. It would be constructed as part of Phase 2 of the project and will span the creek. This new bridge would replace an existing bridge in the same location. According to the Parks and Recreation Division, it is more cost effective to replace this old bridge than repair it. No midspan supports are needed for the new bridge. It will be supported by concrete abutments at each end of the bridge.
- § Bridge #2: This bridge is parallel to and directly adjacent to Mabury Road at 160 feet east from the intersection of Mabury Drive and Creekland Circle. It would be 86 feet in length and would be constructed after construction of the flood control by-pass channel in Phase 3. The bridge will span Penitencia Creek, but no midspan supports will need to be constructed in the stream channel.
- § Bridge #3: This bridge would be constructed at the midpoint of the project site to cross the future flood control by-pass channel and an adjoining seasonal wetland. It will be constructed in Phase 2 of the project. This bridge would provide an important connection between the northern and southern edges of the project site, including a link between Cape Kennedy Drive and Education Park Drive, which are located on opposite sides of the project site. The 125-foot long bridge will replace an existing asphalt path that is unusable in the winter due to stream flows. The bridge will be supported by midspan piers that will be located in the future by-pass channels but outside of the seasonal wetland
- § Bridge #4: This 34-foot long bridge would be located midway between Education Park Drive and North Jackson Avenue. It will be built on top of an existing concrete weir parallel and adjacent to the creek. This bridge will be constructed as part of the



Phase 2 project improvements and will be removed when the by-pass channel is built in Phase 3.

- § Bridge #5: This 121 foot long bridge will be built to span the by-pass channel 400 feet east of North Jackson Avenue. This bridge will be constructed after the future flood control improvements are completed in Phase 3. The bridge will be supported by midspan piers that will be centered in the by-pass channel.
- § Bridge #6: This 56 foot long bridge will span the creek 400 feet east of North Jackson Avenue. The bridge will be constructed as part of Phase 2 of the project. It will connect the existing path adjoining Mossdale Way with the Phase 2 trail alignment on the north side of the creek. After completion of the by-pass channel, the bridge will serve as a link to bridge #5. No midspan supports are proposed for this bridge.

All the bridges will be metal with wood decking. They will be pre-assembled and delivered to the site ready for installation. Concrete abutments on opposite sides of the creek will be constructed independently with no transfer of materials across the stream channel. The construction of the abutments will require vegetation clearing and excavation, however, the abutments will be constructed outside the streambed. An area of about 400 square feet will need to be cleared for each abutment. This area will also accommodate the equipment required for excavation for the abutments. The pre-assembled bridge will be placed on the abutments by a crane. The longer bridges with midspan piers will be lowered on to their supports in two sections.

Bridges 1, 2, 4 and 6 will be supported by concrete abutments at each end of the bridge deck. Bridges 3 and 5 will require a midspan support in addition to the abutments at each end. Elevations of each bridge are provided in Attachment 2. The locations of these bridges are shown on Figure 3.

The proposed Mabury Park would provide the following facilities:

- a. A turf area of about 71,000 square feet (1.6 acres) with landscape screening along Jackson Avenue and Commodore Drive;
- b. A paved parking lot for 26 vehicles and a turn-around area that would be accessed from Commodore Drive; and
- c. An active play area adjoining the parking lot that includes a tot lot, youth play area, restroom building and a picnic table/barbeque area.

A segment of the Phase 2 multi-use trail would run along the southern or “flag pole” portion of the parksites and provide alternative access to the park as well as a connection to the remainder of the trail. Plans for the park include parking lot and path lighting and park signage. Attachment 3 provides a more detailed site plan of the proposed park development.

Two adjoining vacant rectangular parcels fronting North King Road would be reserved for a future tot lot/children’s playground. A 16,800 square foot parcel is owned by the City of San José. The other parcel, with a site area of 28,000 square feet is presently owned by the SCVWD. Phase 1 and 2 trail alignments cross this site; otherwise, no plans have been prepared for facilities for the future tot lot at this time. When plans are prepared, the proposed use will undergo a separate Environmental Review.

# KEY

- |  |  |  |
|--|--|--|
| 1 Existing stop sign   | 12 8' asphalt trail from Cleveland Circle Townhomes to King Road   | 21 Bike lanes as part of King Road widening project                            |
| 2 Future signalized intersection, as part of King Road widening                                  | 13 Bridge #2: Bridge over Portenada Creek  | 22 Existing 12' wide trail   |
| 3 Existing wood fence  | 14 Existing gas service manifold boxes   | 23 Existing Portenada Creek Trail to remain, connecting to Adams Park          |
| 4 Future signalized intersection at North Jackson Avenue and Commodore Drive                     | 15 Existing signalized intersection  | 24 Bridge #5: bridge over by-pass channel                                      |
| 5 Existing pedestrian bridge to be removed with King Road widening                               | 16 Bridge #3: Bridge to replace existing path and accommodate future by-pass channel   | 25 Existing Jackson Street bridge  |
| 6 Future King Road widening  | 17 Trail spur to be located on existing maintenance road   | 26 Existing restroom   |
| 7 Future by-pass channel by SCVWD  | 18 Existing county park water service  | 27 Neighborhood park   |
| 8 Future flood protection by-pass channel, by Army Corp of Engineers                             | 19 Existing 3' wide asphalt trail (Phase #1) to be widened to 10' (Phase #3)   | 28 Bridge #6: bridge over Portenada Creek                                      |
| 9 Future link to Portenada Creek Park Reach 7, to be included in road widening / bridge projects | 20 Bridge #4: Bridge adjacent to existing spillway, bridge to be removed and spillway demolished during construction of future by-pass channel | 29 Proposed lot lot  |
| 10 5 ft. wide sidewalk as part of King Road widening project                                     |  | 30 Future signalized pedestrian crossing as part of King Road widening project |
| 11 Bridge #1: Existing bridge to be replaced   |  | 31 Existing 8' wide sidewalk   |



## FUTURE FLOOD CONTROL IMPROVEMENTS

Although not part of the Master Plan, a description of the future flood control improvements is provided here as background information. This information has been provided by the SCVWD. The flood control improvement project will be evaluated under its own Environmental Review.

The linear open space area directly north of Penitencia Creek includes a flood control easement for the SCVWD. Currently, the low-lying area adjoining the creek acts as a receiver to overflow waters from the creek in high stream flow events. The Corps of Engineers and the SCVWD desire to improve the efficiency and capacity of the easement area for overflow events by constructing new facilities.

**Initial Phase. Lower Section of Reach 6 (extending from King Road to 500 feet east of King Road).** Plans for a bypass channel are approximately 60% complete. Implementation is anticipated in approximately two years. A creek overflow structure (concrete weir) and overflow channel will be constructed upstream of North King Road to divert stream flows to a new by-pass channel in high flow events. The overflow structure will be designed to divert stream flows when they reach 600 cubic feet/second. The by-pass channel will be a concrete double-chambered buried box culvert. It will be located within the limits shown on Figure 3. It is currently estimated that 18,750 cubic yards of earth will need to be excavated along Reach 6 for a trench to install the culverts. Some of this excavated material will be used to backfill the trench and cover the culverts. The by-pass channel culverts will continue west of North King Road beyond Reach 6 and extend to the beginning of a by-pass outlet at Coyote Creek.

Air vents would be provided into the culverts to provide ventilation. An open low-flow channel, one foot in depth, would be constructed along the entire length of each by-pass channel culvert. This low-flow channel would help prevent stranded fish being discharged into the culverts and allow fine sediments to settle out as flows recede.

**Final Phase, Upper Section of Reach 6.** Beginning east of the first phase improvements and continuing east of North Jackson Avenue, the final phase of the flood control improvements is presently undergoing alternatives analysis. No schedule for implementation has been established, however, it is unlikely that these improvements will be implemented sooner than 2010. For the Penitencia Creek Flood Protection Project, the U.S. Army Corps of Engineers is studying different alternatives to provide flood protection. They have been focusing their feasibility study on a geomorphic alternative, a bypass alternative and a 2,000 cfs alternative. At this time, there is no preferred alternative except that the geomorphic and bypass alternatives are preferred over the 2,000 cfs alternative. Some regulatory agencies have expressed their preference for the geomorphic alternatives over the bypass alternative. However, the recommended project alternative will not be determined until the completion of the feasibility study in 2005.

In general, the geomorphic alternative involves the creation of a new meandering creek in a modified flood plain and the abandonment of the existing creek at some locations. In the area upstream of King Road to Jackson Avenue, this alternative proposes to create a new geomorphic creek that: 1) connects to the existing creek just downstream of the existing culvert crossing underneath Jackson Avenue; 2) meanders in a modified floodplain; and 3) connects to the existing creek just upstream of King Road and the proposed bypass. There are floodwalls and levees proposed at various locations along the right and left banks of the floodplain to contain flood flows. There would be new vegetation planted along both sides of the new creek. The portion of the creek that crossed underneath Mabury Road would be abandoned.

Under the bypass alternative, a proposed earthen-lined bypass channel would be constructed in a modified floodplain parallel to the existing creek. The flood flows would be contained within the bypass channel and floodwalls and levees would be constructed at various locations along the right bank of the floodplain and left bank of the creek.

The 2,000 cfs alternative is very similar to the bypass alternative, but on a smaller scale. However, it is highly unlikely that the SCVWD would build an alternative that only provides protection from a 5-year flood event. The SCVWD only builds flood protection projects for the 100-year flood events.

Under all three scenarios, the floodplain located on the north side of Penitencia Creek will be modified to accommodate the improvements. Because plans for the flood control improvements are still being developed, future trail alignments have been selected to respond to the range of options under consideration.

#### REQUIRED PERMITS AND APPROVALS

This Initial Study has been prepared for the Environmental Review of the Master Plan pursuant to the California Environmental Quality Act (CEQA). The environmental analysis of the project has identified environmental impacts and mitigation measures to address impacts that are discussed in following sections of this report.

Once the Master Plan and the environmental document are approved, detailed construction documents will be prepared. Regulatory permits from State and local agencies will also be obtained prior to site grading or other construction work. Such permits are required due to the size of the project (i.e., the project meets the minimum acreage for preparation of a storm water pollution prevention plan, as administered by Regional Water Quality Control Board) and because bridges 1, 2, 4, and 6 span a riparian corridor (i.e., necessitates need for Streambed Alteration Permit from California Department of Fish and Game). The construction of flood control by-pass channels is not part of this project and therefore, approvals for that project will be obtained at a later date. As per current regulations, the following permits or approvals will be obtained:

- § City of San José - Environmental Clearance (pursuant to CEQA)
- § California Department of Fish and Game - Streambed Alteration Permit (for trail construction within the riparian corridor along Penitencia Creek)
- § Regional Water Quality Control Board – Storm Water Pollution Prevention Plan and National Pollution Discharge Elimination System Permit (for site grading work in excess of 5 acres)

#### 5. County Assessor's Parcel Number

The majority of the project site is owned by the City of San José. Two parcels are owned by the SCVWD, including the 28,000 square foot parcel proposed to be reserved for a future tot lot. The segment of the Phase 1 trail that consists of an existing asphalt trail is located on the County Park that adjoins the Reach 6 Master Plan site. The largest parcel included in the site is APN 254-19-33. The parcels and their ownerships are listed in the table below.

ASSESSOR PARCEL NUMBER	PROPERTY OWNER
254-19-13	City of San José
254-19-14 (future tot lot)	City of San José
254-19-33	City of San José
254-19-40	County of Santa Clara
254-19-42 (future tot lot)	SCVWD
254-19-46	SCVWD
254-42-16	City of San José

See Attachment 4 for Assessors Parcel Maps of the project site.

**B. Vicinity Map, Recorded Maps and List of Contiguous Property Owners:**

A location map and vicinity map are provided respectively as Figures 1 and 2 located on previous pages of this report. A listing of contiguous property owners is on file at the City Planning Department.

**C. Project Information**

1. Project size: 32.2 acres (not including Penitencia Creek County Park)
2. Amount of Off Street Parking: 26 spaces (parking lot)
3. Site Development

<u>Item</u>	<u>Site Area</u>
Buildings (restroom)	300 sq. ft. (approx.)
Landscaping, including turf area	200,000 sq. ft. (4.8 acres)*
Parking Lot	10,800 sq. ft.
Other Impervious Area (trails and bridges)	102,000 sq. ft. (2.3 acres)
Grading	385,100 sq. ft. (8.8 acres) **

\* Includes a 1.6 acres turf area and a 0.7 acre tree and shrub landscaped area at Mabury Park

\*\* Grading for the Phase 2 trail alignment and Mabury Park. Future for the post-flood control (Phase 3) trail alignment would require an additional 2.7 acres of grading.

4. Plans

The Draft Master Plan for Mabury Park/ Penitencia Creek – Reach 6 was prepared for the City of San José by Callander Associates on December 18, 2001. A copy of this plan is on file at the City of San José Department of Public Works, Parks and Recreational Facilities Division.



5. Land Use

Mabury Park site and Reach 6 of the Penitencia Creek Park Chain is located in the Berryessa Community of San Jose. The project area has the following zoning and general plan land use designations:

APN	ZONING	GENERAL PLAN
254-19-13	“R-1: B-3” (Single-family Residential)	Agriculture
254-19-14	“A” (Agriculture)	Agriculture
254-19-33	“R-1: B-8”(PD) (Single-family Residential and Planned Development)	Public Park and Open Space Lands
254-19-40	“A” (Agriculture)	Agriculture
254-19-42	“A (PD)” (Agriculture and Planned Development)	Agriculture
254-19-46	“A (PD)” (Agriculture and Planned Development)	Public/Quasi Public Lands
254-42-16	“A (PD)” (Agriculture and Planned Development)	Public Park and Open Space Lands

As stated in section I.A above, the site is currently vacant with the Reach 6 portion of the site providing wildlife habitat and flood control. Currently, the site receives limited passive recreational uses. The surrounding area is predominately residential with a variety of supporting facilities including existing parks and schools. The Berryessa Union School District owns a vacant 11-acre parcel between Cape Colony Drive and the Mabury parksite. While this property could provide joint use recreational opportunities in the future, there are no plans to develop any part of the school district parcel as part of this Master Plan. A discussion of surrounding uses is provided in section I.A above.

The project site is designated for recreational use and is part of a larger linear park along Penitencia Creek that connects the Coyote Creek trail (to the west) with Alum Rock Park (to the east). Background for the linear park, or “park chain” as it is more commonly referred to is provided below.

1981 Penitencia Creek Park Joint Parties Agreement. The City of San José, the County of Santa Clara County and the Santa Clara County Valley Water District entered into a tri-party agreement on July 6, 1981 for the joint use and development of the Penitencia Park Chain for park, recreation, open space, flood protection and water conservation purposes. This agreement was amended and updated on February 3, 1987 and again on October 22, 1992. The original term of the agreement was for 25 years with an option to renew this agreement for another twenty-five years. The original agreement will terminate in 2002. In accordance

with the terms of the agreement, the three parties agreed to cooperate in exchanging property to permit joint use of their properties for the intended purposes defined in the agreement. The County's responsibilities were defined to include development, maintenance and operations of all park facilities associated with regional recreation activities, such as hiking, biking, skating, horseback riding and other passive uses. The District is responsible for flood protection and water conservation including maintenance of the channel of Penitencia Creek and the adjacent recharge facilities. The City's responsibilities include fire protection, back-up and extra police service, and development of those portions of the park where the community desires a higher degree of development than is normally found in regional County parks. The entire area of Reach 6 and the Mabury parksite are owned by the City of San José. The SCVWD has an easement over much of Reach 6 and will exercise rights under that easement to construct the flood control by-pass channels in the future described earlier in this report.

6. Physical and Engineering Aspects of the Project

The project site is an irregular "U"-shaped site consisting of moderately level land and creek channel. An informal unimproved trail, as well as SCVWD maintenance roads, traverses the site. The proposed multi-use trail will include six bridges; three of which will cross the creek. Two bridges will span the future flood control channel and the sixth bridge spans an existing weir. The bridges are described in more detail in section I.A above.

7. Availability of Utilities

Utilities are available from the following sources:

Electrical power – Pacific Gas and Electric Company  
Water – Santa Clara Valley Water District (SCVWD)  
Sewer – City of San José

8. Public Improvements

The project is a regional park facility to benefit the public. This project will enhance public access to and through the regional park. The creek corridor is a significant biotic resource that offers a large expanse of shaded riverine aquatic cover providing good avian and mammal habitat. This area also provides opportunities to serve as an outdoor natural sciences classroom and to improve the continuity and quality of habitat. In addition, development of Reach 6 of the Penitencia Creek Park Chain will provide a linkage between the County's Penitencia Creek Park and a future neighborhood park (Mabury Park) on the opposite side of the creek.

Within a one-mile radius of the park site there are a variety of community facilities including schools, neighborhood parks, a fire station, library and small pockets of local retail businesses.

There is a potential to provide a connection between many of these community facilities and the park from the regional trail. In addition, park facilities and programs will be readily accessible to neighborhoods that surround this park.

Access to the multi-use trail is proposed at the following locations:

§ North King Road

§ Intersection of Cape Horn and Cape Diamond Drives

- § Intersection of Mabury Road and Education Park Drive
- § Intersection of Cape Horn and Cape Colony Drives
- § North Jackson Avenue opposite Mossdale Way
- § Intersection of North Jackson Avenue and Commodore Drive

Mabury Park would be developed with a 26-space parking lot, two small play areas (a tot-lot and a youth play area) and picnic and barbeque facilities. A public restroom would also be built on the site.



## SECTION II: DESCRIPTION OF EXISTING CONDITIONS

### A. Project Site Setting

#### 1. Topography

The topography of the project site is relatively level, with a defined creek channel. The Mabury park site is relatively flat and elevated above the flood plain. The land associated with Reach 6 of the creek includes flat low-lying land that is within the flood plain and the channel and banks of Penitencia Creek. There is currently a levee on the northwest edge of the flood plain portion of the site. This earth levee follows the southern edge of Cape Horn Drive.

#### 2. Soils and Geological Characteristics

Preliminary geotechnical and geologic evaluation of the project site was prepared by GeoForensics on October 28, 2001. A supplement of the report was prepared on November 12, 2002. The report provides the results of site reconnaissance and mapping and literature review. The supplement focuses on preliminary recommendations for the six bridges. A summary of the report is summarized below. For a complete reading of both reports please refer to Attachments 5A and 5B.

The project site is located on two layers of alluvial fan deposits. The older deeper deposits are medium dense, gravelly sand and clayey gravel transitioning to sandy or silty clay as it moves upward. This layer is overlain with poorly sorted dense, sandy or gravelly clay. Three active earthquake faults traverse the San Francisco Bay region. The Hayward and Calaveras Faults are located 3.5 miles and 6 miles to the northeast of the site respectively. The San Andreas Fault is located 15 miles to the southwest. While no seismic faults occur within the project site, damage from seismic activity occurring along any of the faults could generate damage at the project site. Since faults do not occur on the site, ground rupture during a seismic event is unlikely. The site is moderately susceptible to liquefaction during a seismic event. Subsurface investigations will be required to determine the potential for ground subsidence to occur during an earthquake. The probability for lateral spreading is very low as is flooding from tsunamis and seiches. This evaluation did not identify any conditions that would make the site unfavorable for construction; however subsurface investigations will be required to confirm this conclusion and to provide design recommendations for structures.

#### 3. Natural Waterways and Areas Subject to Flooding

The project site includes a reach of Penitencia Creek as well as an adjoining low-lying area that is within the creek's floodplain. A levee has been constructed along the northwest edge of this floodplain to protect the proximate residential area from flooding. Only the 3.2-acre Mabury park site is outside of a floodway or floodplain.

The U.S. Army Corps of Engineers, under the sponsorship of the SCVWD, is currently developing preliminary studies for flood protection improvements for this reach of Penitencia Creek. The Corps is currently working with the SCVWD on a flood protection strategy that primarily utilizes two buried parallel culverts to act as by-pass channels. The construction of the channels will displace the majority of the Phase 2 trail along the creek. It is for this reason that the project includes a Phase 3 alignment. Four bridges will be constructed as part of Phase

2. All the original bridges with the exception of the bridge over the weir (bridge 4) will remain. When segments of the Phase 2 trail are displaced by the flood control project, they will be replaced with a “post-flood control” trail (Phase 3) that includes the construction of two additional bridges (bridges 2 and 5). The future flood control project is discussed in more detail in subsection A.4 in Section I above. Improvements to Mabury Park will not be affected by the flood control project.

#### 4. Biological Resources

A preliminary biological assessment was conducted for the project by the Biotic Resources Group in the fall of 2001. This was followed by a complete biological assessment that was conducted in November 2002. The report for the assessment is provided as Attachment 6. Selected information from the assessment is summarized below.

##### a. FLORA

The project site includes three general habitats, non-native grassland, seasonal wetland and riparian forest. These habitats are summarized below and described in more detail in Attachment 6. The grassland encompasses the flat portions of the site abutting Penitencia Creek. This includes the entirety of the Mabury parksite and areas adjacent to the riparian forest associated with the creek. (Refer to Figure 1 of Attachment 6 for a habitat map.) There are also a few remnant orchard trees within the grassland. These trees occur near Cape Horn Drive and include individuals and small groves of black walnut. One small grove of tree-of-heaven (*Ailanthus altissima*), an invasive, non-native tree, was also observed within the grassland. The non-native grassland on the project site in general is of low to moderate value to wildlife because of routine disking that occurred previously and lack of substantial vegetative cover.

Riparian woodland dominated by California sycamore (*Platanus racemosa*) and Fremont cottonwood (*Populus fremontii*) occurs along both banks of the creek and forms the border of the project study area. The limit of the riparian corridor, as defined in the City’s Riparian Corridor Policy, is the outside edge of the riparian habitat (or top of bank, whichever is greater). This edge is depicted on Figure 1 of Attachment 6. There are a few remnant riparian trees within the adjacent grassland. As depicted on Figure 1, these trees occur near Cape Horn Drive and include individual trees or small groves of Fremont cottonwood and sycamore. The riparian habitat is one of the highest value habitats for wildlife species diversity and abundance in California. Attachment 6 explains the factors that contribute to this high wildlife value.

The project site supports an intermittent drainage channel that traverses through the non-native grassland near Cape Horn Drive. The channel is an overflow channel for Penitencia Creek and is maintained/managed by the Santa Clara Valley Water District (SCVWD). Biotic surveys have determined that this drainage is a seasonal wetland. Vegetation includes umbrella sedge (*Cyperus eragrostis*), mule fat (*Baccharis douglasii*) and cocklebur (*Xanthium* sp.). This narrow wetland fringe may meet the criteria of wetlands as per the definition established by the U.S. Army Corps of Engineers, under the Clean Water Act. A detailed delineation of wetlands, conducted as U.S. Army Corps of Engineers criteria, would be necessary to determine the extent of jurisdictional wetlands in the project area.

The biotic assessment for the project area focused on special status plant species that are officially listed by the State and/or federal government and California Native plant Society

(CNPS) List 1B (CNPS, 2000) and have the potential to occur within the riparian woodland areas. Of the seventeen special status plant species believed to have the potential to occur within the vicinity of the site, none were observed.

The City of San José has adopted a Tree Ordinance for the preservation of mature trees regardless of the type of habitat where the tree is located. Pursuant to the Ordinance, any tree with a trunk diameter of 56 inches at 4 feet above grade is to be preserved unless the property owner obtains a tree removal permit from the City and complies with the conditions of the permit. A tree survey was conducted as part of the biotic assessment and 537 trees are located within the project site. Of this total, 192 trees are ordinance-sized trees.

#### b. FAUNA

Common wildlife species expected to occur in the grassland habitat are ground squirrels, Botta's pocket gopher (*Thomomys bottae*), and American robin (*Turdus migratorius*). Common wildlife species that are expected to inhabit the riparian habitat include California slender salamander (*Batrachoseps attenuatus*), Pacific treefrog (*Hyla regilla*), bullfrog (*Rana catesbeiana*), western aquatic garter snake (*Thamnophis couchii*), Wilson's warbler (*Wilsonia pusilla*), Bewick's wren (*Thryomanes bewickii*), green heron (*Butorides striatus*), several swallows, red-shouldered hawk (*Buteo lineatus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and California myotis (*Myotis californicus*). Several special status wildlife species may also inhabit the site. These species are discussed individually below.

The project area's riparian habitat is of high to moderate value to wildlife due to the dense overstory and the site's connection to the contiguous riparian habitat in adjoining reaches of the creek. Riparian habitat along Penitencia Creek may be used by a diversity of wildlife species for food, water, escape cover, nesting, migration and dispersal corridors, and thermal cover. The value of riparian areas to wildlife is underscored by the limited amount of remaining habitat that has not been disturbed or substantially altered by flood control projects, agriculture, and urbanization.

#### c. SPECIAL STATUS WILDLIFE SPECIES

##### Steelhead (*Oncorhynchus mykiss*)

The Central California Coast Evolutionary Significant Unit of Steelhead trout is listed by the federal Endangered Species Act (ESA) as a "threatened" species. Steelhead are anadromous fish that migrate from the ocean up freshwater creeks and rivers to spawn. The young steelhead typically remains in freshwater for two years before migrating to the ocean or bay. They typically spend 1-2 years in marine waters before returning to their natal stream to spawn. Steelhead often spawn more than once before they die, and spawning usually occurs between January and April. Eggs are laid in gravels of streams, and take 4-6 weeks to hatch. The hatchlings are called alevins and remain in the gravels for 2-4 weeks until their yolk sac is absorbed, at which time they emerge from the gravels as "fry" and begin actively feeding. After 1-2 years, the steelhead migrate to the San Francisco Bay and farther out into the Pacific Ocean as "smolts." Reach 6 of the creek is part of this migratory route.

Steelhead are known to spawn and rear in Penitencia Creek within Alum Rock Park and use the lower sections of the creek as a movement corridor to these spawning areas. These steelhead coexist with a resident population of rainbow trout. Steelhead relative abundance increases in wet years when adult and smolt migration conditions improve. The proposed Master Plan and park

project does not propose to alter stream flows or the streambed; therefore, direct impacts to steelhead are not anticipated. However, indirect construction-related impacts could occur from bridge construction in three locations where proposed bridges will cross the creek and may occur from trail construction where the trail route is proximate to the stream channel (e.g., sedimentation in creek).

California red-legged frog (*Rana aurora draytonii*)

This species of frog is designated as a “Species of Special Concern” by the California Department of Fish and Game (CDFG) but is listed by the federal ESA as “threatened”. The former designation is given to those species that have been documented to be in decline but not to the reduced levels that would cause them to be listed by the federal or State ESA as “threatened” or “endangered”. This frog species is found in quiet pools along streams, in marshes, and ponds. This species' breeding season spans January to April (Stebbins 1985). Females deposit 1000 to 4000 eggs on submerged vegetation at or near the surface. Red-legged frogs are closely tied to aquatic environments, and favor streams which include some areas with water at least 0.7 meters deep, a largely intact emergent or shoreline vegetation, and a lack of introduced bullfrogs and non-native fishes. They are generally found on streams having a small drainage area and low gradient (Hayes and Jennings 1988). The red-legged frog occurs west of the Sierra Nevada-Cascade crest and in the Coast Ranges along the entire length of the state. Much of its habitat has undergone significant alterations in recent years, leading to extirpation of many populations. Other factors contributing to its decline include its former exploitation as food, water pollution, and predation and competition by the introduced bullfrog and green sunfish (Moyle 1973, Hayes and Jennings 1988).

California red-legged frogs have been documented to occur along Penitencia Creek within Alum Rock Park (H. T. Harvey and Associates 1997). The biotic assessment prepared for this project concludes that the species may occur in Reach 6 during seasonal movements to and from breeding areas and occasionally during the summer for foraging and cover. This reach of the creek lacks the small pools and slow moving water necessary for breeding habitat. Therefore, Reach 6 is considered potential refuge habitat for the frog.

Foothill yellow-legged frog (*Rana boylei*)

This species of frog is designated as both a State and federal “Species of Special Concern”. There are records of yellow-legged frogs in Penitencia Creek near the Alum Rock Park headquarters (H. T. Harvey and Associates 1999a). However, the characteristics of Reach 6 are not conducive for either refuge or breeding habitat for this species.

Southwestern pond turtle (*Clemmys marmorata pallida*)

The pond turtle is designated as both a federal and State “Species of Special Concern”. This aquatic turtle inhabits ponds, lakes, streams, marshes, and other permanent waters located in woodland, grassland, and open forests below 6,000 ft (Stebbins, 1985). Pond turtles can often be seen basking in the sun on partially submerged logs, rocks, mats of floating vegetation or mud banks. They remain in ponds in winter and during very cold weather, they may hibernate in bottom mud. Stream turtles avoid floods by overwintering in upland habitats with dense cover or seasonally flooded wetlands. The diet of these turtles consists of aquatic vegetation, insects, fish, worms, and carrion. Females dig soil nests in or near stream banks in sparsely vegetated, unshaded habitats. They may move up to a mile in order to nest. Eggs are deposited between April and August. One factor in the decline of this species is the introduction of non-native fish, which prey on hatchlings and juveniles.

The habitat of Reach 6 includes characteristics as those described above and therefore it is potential habitat for the turtle. However, no individuals of this species have been sighted within Reach 6. More extensive surveys for the species conducted upstream in Reach 2 for another project conclude that the species does not reside in areas upstream of this project site.

Pallid bat (*Antrozous pallidus pacificus*)

This bat is a State “Species of Special Concern”. Pallid bats are found in a variety of habitats. This species moves about locally on a seasonal basis, but is not considered to be migratory (Jameson and Peeters, 1988). During the day pallid bats roost in buildings, crevices, caves, mines, and hollow trees. Maternity roosts are colonial, while males and feeding bats roost singly. During the night, pallid bats glean moths from leaves and forage on the ground for invertebrates, especially Jerusalem crickets. Hollows within the riparian trees may be suitable for these bats. As the project will result in the removal of trees within and near the riparian corridor, potential roosting sites for bat would be affected.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)

The dusky-foot woodrat is another State “Species of Special Concern”. These small mammals build large stick nests at the bases of trees and shrubs. They prefer forested habitat with a moderate canopy and brushy understory, and are often found on the upper banks of riparian forests. This woodrat feeds on a variety of woody plants, fungi, flowers and seeds.

This woodrat may occur in the upper banks of the cottonwood-sycamore riparian habitat along Reach 6 of the Penitencia Creek corridor, however no nests were observed within the project area during field reconnaissance surveys. As long as no nest sites occur in the project area at the time of construction, no impacts to this species will occur from the project.

Yellow warbler (*Dendroica petechia brewsteri*)

This warbler is a State “Species of Special Concern”. They are common during spring and fall migration in central California, and are locally common during the summer breeding season. Breeding pairs are closely associated with open canopy riparian habitat along streams and lakes, and are most numerous where substantial areas of riparian habitat remain along major creeks and rivers. A variety of riparian trees are used during foraging, but habitats with willows and cottonwoods or willows and sycamores, with dense undergrowth, seem to be favored. The yellow warbler's diet consists of spiders and insects, which it gleans from understory vegetation and the canopies of deciduous trees. Nests are constructed low in trees, typically from 2-12 feet above the ground (Harrison, 1978), and nesting takes place from April to mid-June. Yellow warblers are much reduced in numbers over much of their California breeding range, largely due to loss of riparian habitat and nest parasitism by the brown-headed cowbird (Remsen, 1978). Due to the lack of dense undergrowth (i.e., large thickets of willow) along this reach of the riparian corridor, the yellow warbler is not expected to nest or forage in the project area.

Burrowing Owl (*Athene cunicularia*)

This migratory bird species is a State “Species of Special Concern”. They are a migratory species and use annual or perennial grasslands as a resting site during migration, as feeding habitat, and as breeding grounds. The nesting season for burrowing owls occurs between February 1 and August 31 and peaks around April 15-July 15 (California Burrowing Owl Consortium 1993). Burrowing owls nest in single pairs, or more often in small colonies, and make their nests in burrows created by fossorial mammals. They forage nocturnally and crepuscularly for insects and small rodents. During the daylight hours burrowing owls will perch conspicuously either at the entrance to their burrow or on a nearby post or shrub. Owls

are found in close association with California ground squirrels, as owls use abandoned burrows of ground squirrels for shelter and nesting.

The Mabury park site area of the project site contains potential burrowing owl habitat due to the presence of ruderal and grassland areas (for foraging) and scattered ground squirrel burrows that occur along the perimeter of the grassland. Protocol level owl surveys were conducted to ascertain presence or absence of this species within the project area. No burrowing owls were observed during these surveys; however a supplemental survey during the wintering period must occur to fully ascertain presence or absence of the bird species during the winter residency period.

5. Historical, Archaeological or Cultural Significance and Natural Features or Unique Characteristics

Archaeological Resource Management conducted an archival search and a surface reconnaissance at the project site. A copy of the report is on file at the City Planning Department. This evaluation concludes there are no historic or prehistoric archeological resources recorded inside the project area. The nearest recorded archeological sites are located approximately 0.5 mile from the project site. Eleven other surveys done for other projects within 1/8 mile of the project site did not find any indications of archaeological resources. Although these surveys have negative results, this area of Santa Clara County is known for high potential to have archaeological resources.

6. Developments in the Area Similar to the One Proposed

Completed portions of the Penitencia Creek Trail extend immediately east of the project site. The trail extends west of Piedmont Road along Penitencia Creek to Mabury Road and the County Park. Independence High School is located on the south side of Mabury Drive opposite the project site. Adjoining reaches of the creek are located upstream and downstream of Reach 6 and these reaches will also be developed with a multi-use trail system that will connect to that proposed for Reach 6 to provide a continuous multi-use trail system between Coyote Creek and Alum Rock Park.

7. Developed Areas Within 300 Feet of Project Site

Single-family residential uses are located north, east and west of the Master Plan site. Multi-family residential uses are located on the south side of Mossdale Way at the eastern end of the site and on the south side of Creekland Circle at the western portion of the site. A mixture of commercial uses and storage yard uses are located on the west side of North King Road west of the site. Independence High School and Penitencia Creek County Park are located south of the site, with the County Park adjoining the site and the high school campus located south of Mabury Road. A vacant parcel owned by Berryessa School District adjoins the westerly edge of the Mabury park site.

8. Existing and Previous Land Uses of Project Site

a. SPECIFIC CURRENT LAND USES: See above

b. SPECIFIC CURRENT INDUSTRIAL AND/OR COMMERCIAL LAND USES: None

- c. SPECIFIC LAND USES IN A. AND B. ABOVE THAT WERE PREVIOUSLY UTILIZED ON THE SITE: None

9. Aerial Photos: See Figure 4

10. Photographs of Site: See Attachment 7

**B. Annexations**

There are no annexations associated with this project.

**C. Hazardous Materials Storage Site Information**

There are no hazardous materials associated with this project or project site.

**D. Attachments Included in the Initial Study**

- 1. Selected Cross-sections of the Trail
- 2. Elevations of the Bridges
- 3. Detailed Preliminary Site Plan of Mabury Park
- 4. Assessors Parcel Maps
- 5A. Preliminary Geotechnical and Geological Report prepared by GeoForensics dated October 28, 2001
- 5B. Preliminary Geotechnical and Geological Report Supplement prepared by GeoForensics, dated November 12, 2002
- 6. Biological Assessment prepared by Biotic Resources Group, dated February 18, 2003
- 7. Photographs of the Site

A listing of attachments is also provided in the Table of Contents of this report.





### SECTION III: ENVIRONMENTAL CHECKLIST

Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
<b>I. AESTHETICS.</b>					
Would the project:					
<input type="checkbox"/> a. Have a substantial adverse effect on a scenic vista?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 11
<input checked="" type="checkbox"/> b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings and historic buildings within a state scenic highway?			<input type="checkbox"/>		2, 11
<input type="checkbox"/> c. Substantially degrade the existing visual character or quality of the site and its surroundings?		<input type="checkbox"/>	<input checked="" type="checkbox"/>		2, 11
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2, 11
<b>II. AGRICULTURAL RESOURCES.</b>					
Would the project:					
<input checked="" type="checkbox"/> a. Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?					2, 11
<input checked="" type="checkbox"/> b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?					2, 11

Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
<hr/>					
III. AIR QUALITY. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 11
b. Violate any air quality standard or substantially contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2, 11
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 11
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,11
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2,11
<hr/>					
IV. BIOLOGICAL RESOURCES. Would the project:					
a. Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,4,5,8

Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
<p>b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Dept. of Fish and Game or the U.S. Fish and Wildlife Service?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>					2,3,4,5,7,8
<p>c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3
<p>d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,8
<p>e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>					3,11
<p>f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,11
<hr/>					
V. CULTURAL RESOURCES.					
Would the project:					
<p>a. Cause a substantial adverse change in the significance of a historical resource as defined in S15064.5?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
<input type="checkbox"/> <input checked="" type="checkbox"/> b. Cause a substantial adverse change in the significance of an archeological resource pursuant to S15064.5?	<input type="checkbox"/>		<input type="checkbox"/>		1
<input checked="" type="checkbox"/> <input type="checkbox"/> c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?					1
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
<hr/>					
VI. GEOLOGY AND SOILS. Would the project:					
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6
ii). Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
iii). Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
iv). Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6
<input type="checkbox"/> b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	6



Environmental Checklist		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
VII	c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
	d. Be located on expansive soil creating substantial risks to life or property?					6
HAZARDS AND HAZARDOUS MATERIALS.						
.	Would the project:					
	a. Create a significant hazard to the public or the environment through the routine transport, use of disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,11
	b. Create a significant hazard to the public of the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,25
	c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,25
	d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,25

Environmental Checklist		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,25
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,25
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,25
<hr/>						
VIII	HYDROLOGY AND WATER QUALITY.					
.	Would the project:					
a. Violate any water quality standards or waste discharge requirements?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 10
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3,7
c. Substantially alter the existing drainage of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in flooding on- or off-site?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 6, 7



Environmental Checklist		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
d. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,7
e. Otherwise substantially degrade water quality?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,7
f. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate map or other flood hazard delineation map?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3
g. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 7
<input checked="" type="checkbox"/>	h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3, 6, 7
i. Inundation by seiche, tsunami or mudflow?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 6,7
<hr/>						
IX. LAND USE AND PLANNING. Would the proposal:						
<input checked="" type="checkbox"/>	a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		11


Environmental Checklist		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
b. Conflict with any applicable land use plan, policy or regulation of any agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal plan or zoning ordinance) adopted for this purpose of mitigating an environmental effect?					<input checked="" type="checkbox"/>	11
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?		<input checked="" type="checkbox"/>	<input type="checkbox"/>			11
<hr/>						
X.	MINERAL RESOURCES. Would the project					
a. Result in the loss of availability of a known mineral resource that would be a future value to the region and the residents of the state?		<input checked="" type="checkbox"/>				11
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
<hr/>						
XI.	NOISE. Would the project result in:					
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		<input type="checkbox"/>		<input type="checkbox"/>		11
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11



Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
 c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?					3, 11
d. A substantial temporary increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3, 11
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
<b>XII. POPULATION AND HOUSING.</b> Would the project:					
a. Induce substantial population growth in an area either directly or indirectly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
 b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?					11
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11

Environmental Checklist		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
<b>XIII. PUBLIC SERVICES.</b>						
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, a need for new or physically altered government services, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
a. Fire protection?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 11
b. Police protection?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 11
c. Schools?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11
<input checked="" type="checkbox"/>	d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3, 11
<input type="checkbox"/>	e. Other public facilities?		<input type="checkbox"/>			3, 11
<b>XIV. RECREATION.</b>						
<input type="checkbox"/>	a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 11
	b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3, 11

Environmental Checklist		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
XV.	TRANSPORTATION/TRAFFIC. Would the project:					
	a. Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3, 11
	b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11
	c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?					3, 11
	d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>				3, 11
	e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11
	f. Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11
XVI.	UTILITIES AND SERVICE SYSTEMS. Would the project:					
	a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11

Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11
 c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?					3, 7, 11
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 7, 11
e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the providers existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 7, 11
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 11

Environmental Checklist	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than Significant Impact	No Impact	Information Source(s)
XVII. MANDATORY FINDINGS OF SIGNIFICANCE.					
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 – 6, 8, 9
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of the project area considerable when viewed in connection with the effects of past projects, the effects or other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 7, 11
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3, 7, 11

## INFORMATION SOURCES

1. Archaeological Resource Management, Cultural Resource Evaluation of the Master Plan for Mabury Park/ Penitencia Creek - Reach 6, dated October 31, 2001 and report supplement dated November 2002.
2. Biotic Resources Group, Biological Assessment for Mabury Park/Penitencia Creek – Reach 6 Master Plan, dated December 3, 2002, prepared for the City of San Jose and Callander Associates.
3. Callander Associates, Draft Master Plan for Mabury Park and Penitencia Creek - Reach 6, dated November 5, 2002, prepared for the City of San Jose.
4. California, State of, Department of Fish & Game. 2002. Designated Endangered, Threatened or Rare Plants and Candidates with Official Listing Dates.
5. California, State of, Department of Fish & Game. 2002. Natural Diversity Data Base, Natural Communities. 2002 Rarefind program.
6. GeoForensics, Inc., Preliminary Geotechnical and Geologic Evaluation of the Mabury Parksite and Reach 6 of Penitencia Creek, prepared for Callander Associates, dated October 28, 2000 and Report Supplement, dated November 12, 2002
7. Palajac, Jan, City of San Jose Department of Public Works, Initial Study Prepared for the Penitencia Creek Park – Reach 2 Master Plan, dated November 30, 2001
8. Remsen, J. V., Jr. 1978. *Bird Species of Special Concern in California*. Calif. Dept. Fish and Game Report No. 78-1.
9. San José, City of, Heritage Tree List, June 2000.
10. San José, City of, Riparian Corridor Policy Study, March 1999.
11. San José, City of, San Jose 2020 General Plan, as amended through 1997.
12. Steve Bui, Santa Clara Valley Water District, pers. comm., 2002.

## LIST OF PREPARERS

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## SECTION IV: DISCUSSION OF POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Discussions of the basis for each answer except “No Impact” are presented below. In some instances, where the basis for a “No Impact determination needs explanation, a discussion is also provided.

### I. AESTHETICS

- a. The project site does not contain any designated scenic vista areas.
- b. The project is not located along a scenic highway; no scenic vistas will be impacted.
- c. While the project will introduce development in an open space site, the level of development will not substantially degrade the visual character of the site. The riparian forest canopy associated with Reach 6 of the creek is an important visual forested backdrop and visual open space amenity for the surrounding area. The amount of vegetation that will be removed to construct trail facilities is limited so as to not alter the visual character of the riparian forest canopy.
- d. The plans for Mabury Park include security lighting at:
  - € The North Jackson Avenue under crossing;
  - € Along trails and the parking lot in the park; and
  - € On bridge # 3 (The pedestrian link between Cape Kennedy Drive and Education Drive).Security lighting would consist of light fixtures mounted on structures, such as the restroom building and the North Jackson Avenue under crossing, and lighting on low-rise standards along pathways. In addition, to security lighting, the parking lot will have general lighting on 16-foot high standards. Residential uses are located on the opposite side of Commodore Drive and North Jackson Street from the park site.

### DISCUSSION

The lighting along the trail would be installed either under the North Jackson Avenue Bridge or on the pedestrian/bicycle bridge #3 that spans the flood control channel. Section D-D of Attachment 1 shows the location of the lighting under the North Jackson Avenue Bridge. The elevation of bridge #3 in Attachment 2 does not show the proposed lighting on this proposed bridge; however, according to City staff, this lighting will be set on poles that are lower than 30 feet to reduce illumination into the riparian corridor and will have glare guards to reduce light spill to nearby homes.

Final lighting plans have not yet been prepared for Mabury Park but project plans call for parking lot lighting on 16 foot high light posts and low rise security lighting of the pathway that traverses the length of the park. (See Attachment 3 for a site plan of the park and selected points along the trail.) The lighting underneath the North Jackson Avenue Bridge will not create glares off-site due to its location under a collector street bridge. The parking lot lighting described above could increase glare and illumination to nearby dwellings as well as contribute to light pollution of the night sky affecting astronomical research. City policy 4-3 minimizes the impact of outdoor lighting in the vertical plane of the night sky to protect astronomical research but does not address horizontally directed glare. In addition, the policy only pertains to private developments. Unless mitigated, project lighting could increase both vertical and horizontal illumination during nighttime.

While the residential environment currently includes street lighting, the project will add additional sources of lighting to an area that does not generate lighting now. The proposed lighting will be affixed to a bridge or on posts 16 feet above the proposed parking lot at Mabury Park; both of which will generate mid-height illumination (lower than the 30 ft. high street lights). The front yards of the homes on Commodore Drive are located 47 feet north of the Mabury park site. Both the parking lot and the pathway begin on the opposite site of Commodore Drive from these homes. These factors create a high potential for nighttime illumination impacts to the inhabitants of proximate homes. Design features can be included to any form of lighting to reduce its horizontal glare and spill on to

other properties.

## II. AGRICULTURAL RESOURCES

- a. The project site does not contain any designated farmland.
- b. The project site is not zoned for agricultural use, nor is any of the parcels in a Williamson contract.
- c. The project will not result in conversion of farmland to a non-agricultural use.

## III. AIR QUALITY

### Discussion of Checklist Answers

- a. Implementation of the project will not conflict with or obstruct implementation of the regional air quality plan as park uses are passive and involve no-motorized activities.
- b. Implementation of the project will involve construction activities, including excavation and grading operations, construction traffic and wind blowing over exposed earth that will affect local and regional air quality. Although, construction activities will be limited to a relatively small amount of grading over a short period of time, exhaust emissions from construction equipment will add carbon monoxide, sulfur dioxide and other pollutants into the vicinity. However, due to the relatively small amount of use by such equipment, the introduction of exhaust emissions will either be so minor or of such short duration that no substantial degradation of air quality will occur. Construction activities include e grading the entire 3.2-acre site for the development of Mabury Park and 6,720 lineal feet of trail. Other excavation will be required for the construction of the six bridges. This construction activity will generate dust. Airborne dust particles are referred to as particulate matter. When particulate matter measures 10 microns or greater in size (PM10), it is considered a contributor to air quality degradation. Construction dust has the potential for creating a nuisance at nearby properties as well as degrades air quality in the area. Such dust generation will be limited to the construction phase of the project. *This is a significant short-term impact.*
- c. Implementation of the Penitencia Creek Master Plan – Reach 2 will not have significant contributions of pollutants wherein the project region would be in non- attainment of federal or state ambient air quality standards.
- d. The project will not expose sensitive receptors to pollutants.
- e. The project will not create objectionable odors.

### DISCUSSION

The excavation of soil during trail construction will result in the release of airborne soil particles, commonly referred to as dust and technically referred to as particulate matter (PM10). This can cause a minor degradation in the ambient air quality for the immediate neighborhood during the time that grading activities occur. A commonly used mitigative technique of watering down exposed soil during construction has been shown to effectively reduce dust emissions to insignificant levels if done on a regular basis and long term erosion control is applied to exposed earthen surfaces at the end of construction. These two techniques are the basis for mitigating construction generated dust impacts. Water should not be procured from the creek for this purpose as this could result in impacts to aquatic wildlife. Rather, a water truck can be used which is the common practice at construction sites. The Bay Area Air Quality Management District recommends certain measures to reduce PM10 impact during construction.



## MITIGATION:

**Mitigation Measure AIR-1.** To prevent significant dust emissions during grading activities, which would degrade air quality for the surrounding residential area, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall implement the following measures during all phases of construction on the project site. (These measures are consistent with measures identified by the Bay Area Air Quality Management District to reduce construction impacts):

- € Cover all trucks hauling debris or excess fill from the site;
- € Water all active construction areas at least twice daily with a water truck that procures its water from off-site;
- € Water daily or cover stockpiles of debris, soil, sand or other materials that can be blown by the wind;
- € Apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- € Sweep daily (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction site as well as adjacent public streets if visible soil material is carried onto these streets; and;
- € Post a sign that is visible to persons walking or driving by the edge of the site where active construction is occurring that provides the name of contact person (e.g. disturbance coordinator) and phone number to call if residents are experiencing dust problems in the area. The sign shall remain posted during the entire construction phase at that portion of the site.

**Mitigation Measure AIR-2.** To prevent dust from leaving the after construction activities have been completed, the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall require preparation an erosion control plan for review and approval by the City Planning Department prior to any site disturbance and construction on the site. The plan shall include implementation of the following measure to reduce long-term dust impacts generated from areas of exposed earthen surfaces. Immediately after land alteration and/or construction activities have been completed within each specific area of the project site all disturbed areas shall be revegetated with seed and mulching, ground cover plantings and mulching or hydroseed and hydromulch as applicable for that portion of the site. These measures shall be specified on the final construction plans for the project and included in any construction contract for the project if a private construction firm is used for any component of the project.

## IV. BIOLOGICAL RESOURCES

### Discussion of Checklist Answers

- a. The project site provides migratory habitat for the steelhead, a federally listed “threatened” species. In addition, the site is potential habitat for other special status species. The riparian corridor is potential refuge habitat for the California red-legged frog. It may also be habitat for the southwest pond turtle. These three species are all designated as State “Species of Special Concern”. The federal government lists the red-legged frog as “threatened” and the latter two species as “Species of Special Concern”. The upland, out of stream, area of the riparian corridor and isolated trees stands within the grassland area are potential habitats for the pallid bat and the dusky-footed woodrat, two State “Species of Special Concern”. Tree within the riparian corridor are also potential nesting habitat for the yellow warbler, a State “Species of Special Concern” and raptors (hawks and other birds of prey). Certain species of raptors are designated as “Species of Special Concern” and all active raptor nests are protected by CDFG regulations. Construction, maintenance and use of project facilities will remove habitat for these species and have other impacts which may affect individuals of these species.

Grading, land alteration and other construction activities to construct the multi-use trail near and within the riparian corridor could cause erosion of disturbed soil into the stream channel of Penitencia Creek. Sedimentation of the stream will degrade the aquatic environment used by

steelhead and the other aquatic species discussed above. Some of this trail will require the removal of riparian vegetation that would be used by the two amphibians designated as “Species of Special Concern. The construction of the six bridges associated with the trail has a greater potential to create sedimentation impacts to the creek. Trail and bridge construction will remove 4,900 square feet (0.11 acre) of riparian forest habitat.

Project construction in each phase of the Master Plan could affect the species and their habitats described above. In addition, increased human use of the riparian zone of the site because of new project facilities may also generate indirect impacts to protected wildlife. These impacts include trampling of vegetation and discarding objects into the stream. *Loss of individuals of protected wildlife species is a potentially significant impact which is most closely associated with construction activities. Sedimentation of the creek is a potential short-term (construction related) significant impact. Removal of riparian habitat is a significant long-term impact of this project.*

While the removal of larger trees, such as cottonwood and sycamore, is not substantial, seven such trees will be removed by the project. These trees are potential roosting sites for the pallid bat and raptors. The removal of riparian understory or the alteration of upland portion of the Reach 6 site will remove potential habitat for the woodrat. It is not known with certainty if these two “Species of Special Concern” inhabit the site. A survey consisting of several days of observations would be required to make that determination. Since such a biotic survey has not been done for this project to date, it must be assumed that Reach 6 is potential habitat for these two species. *Project activities that will remove trees and otherwise alter the habitat for these two species will be a significant impact.*

The project includes grading the entire 3.2 acres proposed for Mabury Park. As explained in section II.A.4 of this report, the park site has the characteristics to support burrowing owl habitat. However, the species has not been observed during protocol breeding-season surveys nor during wintering habitat surveys. Therefore, the park site area is not considered potential wintering habitat for the species.

- b. While the majority of the park facilities will occur outside the riparian corridor, segments of the trail will traverse riparian habitat and six bridges will be constructed within (or adjacent to) the riparian forest habitat. According to the biotic assessment, the trail and bridge construction will result in the removal of 4,900 square feet of riparian forest. *The removal of this riparian habitat is a significant impact.*
- c. As discussed in Section II.4, a narrow seasonal wetland area occurs in the low-lying area just northwest of Mabury Road and the riparian forest. This seasonal wetland may qualify as a federal jurisdictional wetland; however a wetland delineation would need to be conducted to make this determination. The construction of both the interim trail and the post-flood control trail include a segment that will be adjacent to this seasonal wetland. The construction of the 125-foot long bridge will occur at the westerly end of this wetland habitat. These construction activities could generate erosion that would degrade the quality of the seasonal wetland. *This is a potentially significant impact.*
- d. The construction of four of the bridges will require access to and activities near the stream channel of Penitencia Creek. This could cause sedimentation or construction-runoff entering the creek that could both impede steelhead migration or degrade the habitat as a migration route between the San Francisco Bay and spawning sites upstream. *This is a potentially significant impact.*
- e. Project development will place substantial portions of the multi-use trail and all six bridges within the City’s 100-foot riparian corridor setback area. According to the City’s Riparian Corridor Policy Study, multi-use trails are allowed within the 100-foot setback. The policy states that trails should be placed a minimum of 10-feet outward from the dripline of riparian vegetation but can extend into the canopy area to maintain trail continuity. The proposed alignment of the trail

and location of the bridges is consistent with this policy. Refer to the discussion under item IX.b below for further information on this issue.

- f. There are no Habitat Conservation Plans, Natural Community Conservation Plans or other approved conservation plans that encompass the project site.

## DISCUSSION

Site development along Reach 6 of the creek includes grading a 30-foot wide pathway along 6,720 lineal feet for construction of the interim trail. (The trail will be 17 feet in width but sidecasted material will increase the width of site disturbance to 30 feet). In the future about 60% of this amount of grading would occur for the post-flood protection trail to be completed to replace the interim trail once the Corps of Engineers/SCVWD flood control project has been completed. Most of this grading will occur on non-native grassland areas of the Reach 6 corridor and will not remove sensitive habitat. However, most of this grading will be proximate or adjacent to riparian habitat. Unconsolidated disturbed soil from the grading operations could erode into this sensitive habitat causing damage. Accidental vehicular encroachment into the adjoining canopy or root systems of trees and habitat to be retained could also occur. Proper construction practices can mitigate and avoid these problems.

The construction of the bridges to cross the creek and bridges to span the flood control channel and the seasonal wetland would also occur within Reach 6. Trail and bridge construction will result in the removal of 4,900 square feet of riparian forest habitat. Riparian habitat is a sensitive habitat due to its high importance for the sustenance of a variety of animal species. The removed riparian habitat consists mostly of willows and understory vegetation; however, seven mature trees (one elderberry, five walnuts and one buckeye) will be removed. Five of these trees are ordinance-sized, as listed in the tree survey (see Attachment 6).

The forest and adjoining creek channel is also habitat for the threatened steelhead and potential habitat for five other special status animal species. Development of trail facilities may also cause the indirect impacts of erosion and sedimentation of the stream channel or release of hazardous fluids from construction vehicles as associated machinery that will degrade both the aquatic and riparian forest environments.

Removal of riparian habitat should be compensated by the creation of new habitat on the site. A riparian revegetation plan to provide new habitat should be consistent with the policies of the California Department of Fish and Game (CDFG) since a Streambed Alteration Permit from that agency will be required to conduct work within the riparian environment. The indirect impacts generated from erosion and accidental release of vehicle and machinery fluids can be prevented by incorporating best management practices during construction. Removal of habitat for the pallid bat and woodrat can be addressed by pre-construction surveys, re-creation of riparian habitat and relocation of any discovered woodrat nests.

Development of the park site would occur outside the City's 100-foot riparian corridor setback..

## MITIGATION

**Mitigation Measure BIO-1.** To minimize post-construction indirect impacts to wildlife and riparian habitat from trail and bridge use, the trails along the Reach 6 corridor shall be set back from the existing outer edge of the riparian tree canopy by a minimum of 10 feet, as shown on project plans (except for bridge crossings, trail connections to the bridges in phases 2 and 3 and use of existing SCVWD maintenance roads in Phase 1). The City of San José, Department of Public Works Parks and Recreation Facilities Division shall show the 10-foot setback from the dripline on the construction plans for each construction phase. As depicted on the Master Plan, all active recreation at the Mabury Park site (e.g., structures, impervious surfaces, active play areas) shall be setback a minimum setback of 100 feet from the edge of the riparian woodland. This distance shall be shown on the construction plans for the park.

**Mitigation Measure BIO-2.** To compensate for the removal of 4,900 square feet of riparian habitat (including ordinance-sized riparian trees) from trail and bridge construction, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall implement a riparian revegetation plan as shown on Figure 2 of Attachment 6. The plan specifies a 3:1 riparian habitat replacement ratio (i.e., 3 acres of habitat created for each acre impacted) to provide the native riparian vegetation described in Table 3 of Attachment 6. This mitigation provides a 4:1 replacement ratio for trees affected by trail and bridge construction (including ordinance-sized trees). Based on the Master Plan design, approximately 14,700 square feet (0.33 acre) of riparian revegetation shall be installed within the project site to meet this 3:1 habitat replacement ratio (and 4:1 tree replacement ratio). If the impact area were reduced during the final design phase of the project, a smaller revegetation area would be acceptable, so long as a 3:1 acreage replacement ratio (and minimum 4:1 replacement ratio for trees) is implemented. The revegetation plan shall also include a 5-year maintenance and monitoring program as described in Attachment 6. Monitoring shall occur at least once per year. The success criteria shall be 80% plant survival during each year of the monitoring period. If this success criteria is not achieved at the end of year 5, maintenance and monitoring activities shall continue in annual increments until the success criteria is achieved.

The City of San José, Department of Public Works Parks and Recreation Facilities Division shall include the approved riparian revegetation plan as part of the final construction plans for the trail project and implement the plan as approved.

**Mitigation Measure BIO- 3.** To prevent cumulative loss of riparian habitat from occurring during the three phases of the trail portion of the Master Plan, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall remove all facilities installed within the Phase 2 trail alignment that are not needed for the Phase 3 alignment. Removal shall occur within the same construction season that the facilities within Phase 3 are constructed. The removal (demolition) of the Phase 2 trail segments, shall include an approved erosion control plan that includes the following elements:

- ⊘ Prior to removal of the abandoned trail segments, erosion barriers will be installed along the outside edge of the pathway where demolition of the interim trail will occur to prevent trail demolition debris and sediments from entering the creek;
- ⊘ Upon completion of trail removal activities, revegetation of the disturbed areas (areas not affected by future flood control improvements) with a non-invasive erosion control seed mix that is compatible with the adjacent riparian woodland and the future flood control project;
- ⊘ Revegetation shall occur as soon as possible after trail removal activities have been completed but prior to October 15 of the year the removal occurs; and
- ⊘ Monitoring of the effectiveness of the erosion control measures during the first year's rainy season and implementation of remedial measures (e.g., reseeding, repair of silt fencing or other erosion control barriers) if sedimentation or erosion is noted.

**Mitigation Measure BIO-4.** To prevent sedimentation of the stream and the seasonal wetland, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall install silt fencing (or similar erosion control barrier) along the edge of all grading areas facing the stream channel or proximate to the seasonal wetland prior to the construction of each phase of trail alignments. Surface channel areas of the future flood control project shall be similarly protected during Phase 3 construction. All erosion control barriers shall be maintained in good working condition during the entire length of each construction phase so construction debris and sediments cannot enter Penitencia Creek, the seasonal wetland and the future flood bypass channel. In addition, areas disturbed during construction beyond the paved trail or new bridges, shall be revegetated as described in Mitigation Measure BIO-3.

**Mitigation Measure BIO-5.** To minimize incursions into the riparian habitat from trail users (and thereby minimizing post-construction impacts of the project), the City of San José, Department of Public Works Parks and Recreation Facilities Division shall install a low split-rail type fence or

vegetative barrier plantings between the riparian woodland and the trail (where the trail is located adjacent to the riparian woodland) concurrent with trail construction in Phases 2 and 3. The City shall also post signs at Bridges #1, #2, #4 and #6 stating that fishing is prohibited and the dumping of non-native fishes or any other objects into the creek is prohibited. The signs shall be designed so they are easily seen but non-obtrusive (i.e. harmonize with the natural setting of the riparian open space).

**Mitigation Measure BIO-6.** To prevent water quality degradation and to prevent affecting special status wildlife species of steelhead trout, California red-legged frog and other aquatic species that occur in Reach 6 of Penitencia Creek, the City of San José, Department of Public Works Parks and Recreation Facilities Division will implement the following measures:

- € The project shall incorporate erosion control measures to preclude erosion or sediments from damaging the riparian habitat and entering the channel of Penitencia Creek as specified by Mitigation Measure GEO-2;
- € Erosion control shall include dust control measures, erosion control seeding of all disturbed areas following construction, and the placement of silt fencing along the outside edge of grading and/or riparian woodland (whichever is greater) to prevent construction debris and sediments from entering the stream during construction;
- € Monitor the effectiveness of the erosion control measures during the first year's rainy season and implement remedial measures (e.g., reseeding, repair of silt fencing) if sedimentation or erosion is noted; and
- € Conduct all work in the "dry" months of May 1 to November 1 when the California red-legged frog is least active.
- € Advise all construction personnel that no California red-legged frogs are to be harmed. Photographs of the species shall be provided to construction workers by the project wildlife biologist so they are aware of the appearance of the species.

**Mitigation Measure BIO-7.** To prevent the loss or "take" of California red-legged frogs and southwestern pond turtles during construction, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall have a qualified biologist conduct a pre-construction survey for the species. The survey shall consist of one-night survey (for frogs) and one-day survey (for pond turtles) conducted within 48 hours of the onset of construction activities (or other USFWS protocol for the frog). If California red-legged frogs or pond turtles are observed during the survey, construction shall be postponed and the appropriate agency shall be contacted for guidance prior to construction proceeding. USFWS shall be contacted for the frog and CDFG shall be contacted for the pond turtle.

**Mitigation Measure BIO-8.** To avoid direct and indirect impacts to woodrats that may occur in the riparian woodland, a qualified wildlife biologist, under contract to the City of San José, Department of Public Works Parks and Recreation Facilities Division shall conduct a pre-construction survey to document if there are woodrat nests in the construction area. If a nest is present, the biologist shall consult with the CDFG regarding the potential to relocate the nest to an undisturbed portion of the riparian corridor prior to any construction or land disturbance in the area. If relocation is not possible, CDFG shall be consulted regarding removal of the nests in a manner that allows the woodrats to escape unharmed.

**Mitigation Measure BIO-9.** To avoid impacts to tree nesting birds, including raptors, that may occur in the riparian corridor, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall ensure that all site grading and other heavy equipment work within the 100-foot riparian setback area shall occur outside the breeding period of bird species, including raptors (e.g., construction should occur after August 1 and before March 15<sup>th</sup>). If construction must be scheduled during the breeding season, the City shall implement the following measures:

- € Have a qualified wildlife biologist, conduct pre-construction surveys for nesting birds to determine if they occur on the site. The surveys shall be conducted no earlier than 30 days prior to commencement of grading or construction. If birds, other than raptors, are breeding

on the site, the City shall postpone construction within a buffer zone of the nest site, as determined by the qualified biologist, until all young have fledged. The project wildlife biologist shall document that the young have fledged prior to commencement of construction work.

- ⌘ If nesting raptors are observed, the City shall postpone construction within 300 feet of the nest site (radius) until all young have fledged. The wildlife biologist shall document that the young have fledged prior to construction work. The wildlife biologist shall document that the young have fledged prior to construction work.

**Mitigation Measure BIO-10.** To avoid the potential loss of roosting sites for the pallid bat (a special status species), the City of San José, Department of Public Works Parks and Recreation Facilities Division shall, within 60 days prior to scheduled commencement of tree removal, have a qualified biologist survey the trees marked for removal to determine if any of the trees provide suitable crevices or hollows for bat roosts. If suitable roost trees are found, a qualified biologist shall conduct surveys for bats (i.e., using acoustical equipment or guano traps) to determine if these trees are currently occupied by the species. If bat maternity roosts are found in trees to be removed, the City shall schedule tree removal to occur outside the breeding season for the species, as determined by a qualified biologist (e.g. late summer or fall). If crevices or hollows suitable for bat roosts are found, the City shall, prior to tree removal, have a qualified biologist place exclusion devices over the hollows to allow bats to leave the tree, but not be able to return.

**Mitigation Measure BIO-11.** To avoid impacts to trees that are to be retained, the City of San José, Department of Public Works Parks and Recreation Facilities Division will implement the following measures during all trail construction:

- ⌘ Temporary construction fences shall be erected along the dripline of all retained trees (or tree groupings) that occur adjacent to the construction work area. All construction activities, including storage of construction materials, parking of vehicles and deposition of trash, shall be prohibited from these fenced areas.
- ⌘ A construction vehicle parking and staging area shall be delineated on the construction plans and in the field so that storage of construction equipment and overnight parking of construction vehicles is confined to a designated area which is, at minimum, partially identified with temporary fencing. The location of the parking and staging area shall be approved by the project biologist prior to finalization of the construction plans for each phase of the Master Plan.
- ⌘ The condition of the tree-protection fencing and fencing delineating the parking and staging area shall be checked on a weekly basis and repaired within 24 hours if damage is noted. Results of these fencing inspections shall be reported to the City of San José, Department of Public Works Parks and Recreation Facilities Division. If damage to any tree occurs, a remediation program shall be developed by a certified arborist and implemented according to the arborist's supervision and direction. Success of these remedial measures shall be monitored by the certified arborist and the City.

## V. CULTURAL RESOURCES

### Discussion of Checklist Answers

- a. No historical resources as defined in S15064.5 occur on the project site. This area of San José was used in the past by people engaged in farming. It is possible that subsurface historic resources could be encountered during grading activities for the project. *If any historic resources are uncovered on the site during site grading, loss or damage to these resources would be a significant impact.*
- b. No indications of archaeological resources occurring on the project site were found in the archaeological reconnaissance conducted for this project. However, this area of San José is known to contain numerous buried archaeological resources. It is possible that subsurface

archaeological resources could be encountered during grading activities for the project.  
*If any archaeological resources are uncovered on the site during site grading, loss or damage to these resources would be a significant impact.*

- c. No unique paleontological resources or unique geologic features occur on the project site.
- d. No human remains are known to occur on the project site.

## DISCUSSION

No historical or archaeological resources have been documented on the site. However, the literature research shows that there is a recorded archaeological site within 0.5 mile of the project site. Surface reconnaissance of the Master Plan area was conducted in November 2000 and October 2002 and no traces of historical or archaeological resources were observed during these field investigations. However, the portion of San José where the site is located is known for having numerous buried archeological deposits. While not expected, there is a potential for uncovering historic and prehistoric resources and human remains, particularly during site grading activities. If these are encountered, construction workers should temporarily cease construction in the area of the find and follow a procedure to conserve these resources as specified below in the mitigation measure.

## MITIGATION

**Mitigation Measure CULT –1:** To prevent the loss, damage or unnecessary disturbance of historic or archaeological resources or human remains if any are discovered, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall provide monitoring of site excavation activities to the extent determined by a qualified professional archaeologist to be necessary to insure accurate evaluation of potential impacts to prehistoric resources.

- 1) If no resources are discovered, the archaeologist shall submit a report to the Director of Planning verifying that the required monitoring occurred and that no further mitigation is necessary.
- 2) If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation will proceed to evaluate the deposits for determination of significance as defined by CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the Director of Planning, describing the testing program and subsequent results. These reports shall identify any program mitigation that the Developer shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources.)
- 3) In the event that human remains and/or cultural materials are found, all project-related construction shall cease within a 50-foot radius in order to proceed with the testing and mitigation measures required. Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California:
  - a) In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.
  - b) A final report shall be submitted to the Director of Planning. This report shall contain a

description of the mitigation programs and its results including a description of the monitoring and testing program, a list of the resources found, a summary of the resources analysis methodology and conclusions, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the Director of Planning.

Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

## VI. GEOLOGY AND SOILS

### Discussion of Checklist Answers

- a. The geologic and geotechnical assessment prepared for the project determined that the site was considered geologically and geotechnically suitable for the proposed project. The site is located within a seismically active area, with the Hayward fault, located 3.5 miles away, being the closest fault zone. This is discussed in more detail in section II.A.2 above. The site is considered unlikely for ground rupture. Strong ground shaking may occur, however, in the event of an earthquake. Damage to facilities as well and injury resulting from ground shaking could occur during a seismic event. The site was not found to be susceptible to landslides and the potential for liquefaction is considered moderate. While it is not possible to prevent seismic related impacts from occurring, it is possible to reduce the severity of their impacts during a seismic event. *Damage to facilities during a seismic event as a result of ground shaking and/or liquefaction is a potentially significant impact that should be planned for in project construction.*
- b. The existing contours of the site will not be substantially changed with implementation of the Master Plan. However, substantial grading will occur to construct Master Plan facilities as described below:

<u>Item</u>	<u>Site Area</u>
Buildings (restroom)	300 sq. ft. (approx.)
Landscaping, including turf area	200,000 sq. ft. (4.8 acres)*
Parking Lot	10,800 sq. ft.
Other Impervious Area (trails and bridges)	102,000 sq. ft. (2.3 acres)
Grading	385,100 sq. ft. (8.8 acres) **

\* Includes a 1.6 acres turf area and a 0.7 acre tree and shrub landscaped area at Mabury Park

\*\* Grading for the Phase 2 trail alignment and Mabury Park. Future for the post-flood control (Phase 3) trail alignment would require an additional 2.7 acres of grading.

There is a potential for substantial erosion and loss of topsoil without erosion control measures being employed during the construction phase of the project. In total, over 7.8 acres (339,768 sq. ft.) of ground will be disturbed for the Phase 2 trail and Mabury Park development. Another approximate area of 2.7 acres of land would also be disturbed later when the post-flood control (Phase 3) trail is constructed to replace the Phase 2 trail alignment. *The erosion that could be generated by this ground disturbance is a potentially significant impact.*



- c. The assessment conducted for the site did not find any surface indications that showed the site was composed of unstable soils or geologic materials. However, a subsurface investigation would be needed to confirm this preliminary conclusion. No landslides occur on the site or in the immediate project vicinity. It will be important that the six bridges and other facilities are founded on competent material. The geotechnical report supplement states bridge footings will be subject to potential undermining from stream flows unless embedded more deeply than normal foundations. It is also expected that excavations for footings will encounter groundwater below 3 feet. This problem will need to be addressed during construction to allow footings to be constructed in a stable manner in competent material. *The situation of geologic unstable materials affecting the stability of project facilities is considered a potentially significant impact.*
- d. The assessment conducted for the site did not observe indications of soils with high expansion characteristics. However, further geotechnical investigation including subsurface borings will need to be conducted to confirm this preliminary conclusion. *Without further investigation, highly expansive soils affecting the stability of project facilities are considered a potentially significant impact.*

## DISCUSSION

A preliminary geologic and geotechnical assessment was prepared for this project site in October 2001 and a supplement to the report was prepared in November 2002 to address bridge construction. (See Attachments 5A and 5B). However, these are preliminary investigations of the site and did not include subsurface testing or review of project plans at the level of specificity as when a complete geologic or geotechnical report are prepared. The preliminary report supplement does prescribe certain methods to employ during construction of the bridge footings to ensure they withstand the impacts of groundwater inundation of excavations and potential undermining of the constructed footings generated by stream flows. Recommendations include embedding the abutment footings more deeply than normal footings, armoring footings with rip rap and shoring and dewatering excavations for footings to protect against groundwater seeping into the construction pits.

The site is 3.5 miles away from the nearest earthquake fault and would not be affected by a seismic event to any degree greater than the surrounding area. Although the risk of seismically induced impacts is not high, such impacts cannot be totally discounted. Project facilities will need to be constructed to withstand the effects of seismic shaking to an acceptable degree. Designing facilities to withstand a magnitude of 6.4 on the Richter scale with a peak acceleration of 0.4g at the Hayward fault would be necessary to do this. Further geologic work will be required to provide this design specification. The potential for seismically induced liquefaction at the site is considered moderate. Follow-up geologic study should address this concern in design specifications for project facilities.

A more detailed geotechnical report will be required prior to finalization of construction plans to provide a clearer understanding of soil characteristics at the site and what design specifications need to be included in the construction plans to address any identified soil limitations. Borings to provide samples and analysis of soil conditions will be an important part of this report.

Grading will include clearing and re-contouring the entire 3.2-acre Mabury park site and grading a pathway for the multi-use trail that will total 4.6 acres of land disturbance in Reach 6. The grading that will disturb a total of 7.8 acres in the Master Plan area is an activity that can result substantial erosion. Erosion can cause loss of topsoil as well as impacts in other topical areas such as alteration of surface drainage, degradation of wildlife habitat and reduction of local air quality. The implementation of an erosion control can prevent the various impacts generated by erosion problems. Such as plan should employ generally accepted best management practices.

## MITIGATION

**Mitigation Measure GEO-1.** To minimize instability problems associated with seismic events and unstable soil conditions, the City of San José, Department of Public Works Parks and Recreation

Facilities Division shall have a geologic and geotechnical report prepared by a qualified professional prior to approval of the final construction plans for the project. The report shall address, at minimum, the following issues:

- € Appropriate project design specifications to withstand the effects of seismically induced ground shaking and liquefaction using the Hayward fault as the design parameter;
- € Conduct subsurface borings to determine the exact composition of the underlying soils and use this information to recommend design features to mitigate for identified soil characteristics that can be problematic for the long-term maintenance and use of project facilities;
- € The existence of high groundwater on the site shall be discussed and measures to minimize problems during and after excavation shall be recommended; and
- € Any special techniques that need to be included in the project erosion control plan and drainage plan.

The report shall be reviewed by the City geologist. Once the report is accepted by the City as adequate, all approved recommendations and guidelines contained in the geologic/geotechnical report shall be incorporated into the final construction plans for the project including appropriate inspections by a qualified professional to ensure report recommendations are being implemented correctly.

**Mitigation Measure GEO-2.** To prevent accelerated erosion from occurring as a result of project construction, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall have an erosion control plan prepared by a qualified professional (geotechnical engineer, civil engineer, landscape architect or certified erosion control specialist) prior to completion of final construction plans for the project. The approved plan shall be incorporated into the construction plans and followed during all site grading and construction activities. The erosion control plan shall include the following performance standards:

- € A site plan that shows where all disturbed areas will be on the site and which erosion control techniques will be employed in all portions of the disturbance area;
- € Restricting grading and land alteration to the dry season (April 15 to October 15) each year;
- € Revegetation of all disturbed areas, not covered with impervious surfacing, with seed and mulch, ground cover plantings and mulching or hydroseed and hydromulch as applicable for that portion of the site;
- € Initial seeding shall be completed prior to October 15 and include a nurse crop (temporary winter ground cover) of annual barley at a rate of 5 pounds/1,000 square feet or greater;
- € Methods to ensure that areas planned for impervious surfacing will not be left in an erosion generating condition;
- € Protective barriers around the seasonal wetland, creek channel and appropriate areas of the riparian habitat, such as silt fences or staked straw bales, to prevent sedimentation of these areas of the site; and
- € Methods to discharge the pumpage of high groundwater at excavation areas in a manner that does not generate erosion or water quality impacts.

If a private construction firm is hired for any part of project construction, the City shall include the approved specifications of the erosion control plan in the construction contract with the firm.

## **VII. HAZARDS AND HAZARDOUS MATERIALS**

### **Discussion of Checklist Answers**

- a. The project does not propose the transportation, use or disposal of hazardous materials.
- b. The project proposes to develop a 71,000 square foot turf area within the Mabury parksite. Horticultural chemicals will be used on the turf area and other park landscaping on a routine basis as part of the normal maintenance of the park. Small amount of

pesticides and chemical fertilizers will be used for landscape maintenance and they will never be used at levels that are toxic to humans. No horticultural chemicals will be used within the riparian corridor of Reach 6.

- c. The project site is on the opposite side of Mabury Road from Independence High School. However, no hazardous materials will be used in the construction or maintenance of Master Plan facilities.
- d. The site is not located on a list of hazardous materials sites.
- e. The project is not located in an airport land use plan or within two miles of an airport.
- f. The project is not located within the vicinity of a private airstrip.
- g. Implementation of the project will not interfere with emergency actions. Active and passive recreational uses of the park and the trail will not impair the implementation of such actions.

## VIII. HYDROLOGY AND WATER QUALITY

### Discussion of Checklist Answers

- a. The project does not involve discharges into watercourses which would result in the violation of water quality standards or water discharge requirements. However, there is a potential for water quality to be affected by the accidental sedimentation of the stream channel from grading for the trail or site preparation for new bridge installation during project construction for Phases 2 and 3 of the project. This issue is also discussed under item “b” of the preceding subsection, Geology and Soils. *The sedimentation to Penitencia Creek that could occur during project construction is a potentially significant impact.*
- b. The project will not affect groundwater supplies nor interfere with groundwater recharge. The recreational uses on the site will result in minimal impervious surfacing as compared to the total site area. While this surfacing will generate drainage impacts, it will not cover enough of the site with impervious surfacing to affect how rainfall percolates and recharges the water table. No extraction of groundwater will occur in this project.
- c. The proposed trail will include a 10-foot width of asphalt surfacing along its entire length and decomposed granite shoulders on each side of the asphalt pavement with widths of 5 feet and 2 feet. This will introduce impervious and semi-impervious surfacing to Reach 6 of the creek corridor. This new surfacing will total 3 acres of land that will become surfaced with either asphalt or decomposed granite. The new impervious surfacing will both concentrate and increase the velocity of storm runoff along the trail route. The trail construction will include a 2% cross slope that drain surface runoff away from the creek. This will prevent drainage induced erosion impacts to the creek bank. The land at the out-sloped edge of the trail is open space that will provide adequate infiltration and percolation of runoff from the trail.

The development of Mabury Park will include the construction of a 10,800 square foot asphalt parking lot as well as other impervious surfacing for the construction of the restroom building and other park facilities. It is estimated that these other facilities will increase the impervious surfacing at the park site to about 18,360 square feet. This new impervious surfacing will concentrate and increase the volume as well as the velocity of storm runoff. This can result in various forms of drainage and erosion impacts. Grading plans for the park have not yet been prepared. Grading for the turf area of Mabury Park may change the contours of the site so that surface runoff will flow in a new direction conveying additional runoff to a new area. This could result in excessive surface drainage on the adjoining vacant parcel owned by Berryessa School District or on the roadbed of Commodore Drive. *This is a*

*potentially significant impact.* The Division of Parks and Recreation Services intends to develop a drainage system that collects all surface runoff and convey it the existing storm sewer system. However, preliminary drainage plans have not yet been prepared.

- d. The project includes the construction of six bridges, three of which are proposed to span the creek channel. Two bridges will cross the flood control by-pass channel that will be constructed as part of a future flood control project proposed by the SCVWD and the Corps of Engineers. Lastly, one other bridge will cross an existing spillway. The bridges will all be constructed so their spans will be above the flood elevation of the channel in major storm events. The supports for the bridge spans will be set apart at a distance of 38 feet or greater. (See Attachment 2) This separation will provide an adequate width for the any entrained contents of storm flows to pass

without creating obstructions, such as log jams, at the bridge supports that could divert flows and create flooding.

The open space area adjoining the out-slope edge of the trail is sufficiently large enough to provide percolation of the runoff that will be discharged from the hardscape trail surfaces. (Refer to item VIII.c above for additional information). All of the runoff from impervious surfacing in Mabury Park is to be discharged into storm sewers in adjoining streets. These drainage facilities could be impacted by the additional runoff. *This significant impact can be mitigated by the mitigation measures that address the other impact discussed in item VIII.c above .*

- e. The potential for creek sedimentation during project construction is discussed under item VIII.a above. Long-term drainage from Master Plan facilities is discussed under item VIII.c. There are no other drainage impacts that could substantially degrade water quality. The project will not construct any new housing.
- f. A portion of the Master Plan improvements may be subject to flooding from Penitencia Creek, particularly prior to the Corps of Engineers completion of their flood control project. Users of the multi-use trail during a major storm event may be subjected to risk if flooding occurs. However, this impact is not considered significant as the trail will allow easy access to areas outside of the floodplain and most people would not use outdoor recreational facilities during a major storm event. The City also plans to post trail closure signs when any flooding occurs.
- g. The site is not susceptible to seiche, tsunami or mudflows.

## DISCUSSION

While the Master Plan proposes a limited amount of infrastructure, the new interim trail would cover a total of 3 acres of the Reach 6 corridor with impervious and semi-impervious surfacing. When the post-flood control trail alignment is constructed to replace the interim trail alignment in the future, another area equal to about 2 acres (60% of the interim trail) will be surfaced. The City plans to construct the trail with a 2% cross-slope so surface runoff will drain away from the creek and thereby prevent long-term water quality impacts from occurring in Penitencia Creek. However, the three construction phases fro the trail may result in water quality impacts to the creek. The use of grading and paving vehicles in close proximity to the creek to construct the trail and the bridges has the potential to generate erosion and sedimentation of the watercourse. This impact is also discussed under item VI.b in the Geology and Soils section.

The development of the Mabury park site includes a 10,800 square foot asphalt parking lot and other facilities that will increase the area of impervious surfacing beyond 10,800 square feet. These newly surfaced areas will reduce the amount of land available to percolate rainfall and will instead generate concentrated and higher velocity runoff during storm events. In addition to higher runoff rates, the

grading of 1.6 acres of the site for the open play turf area may change site contours in a way that could redirect drainage to new areas. According to the City Division of Parks and Recreation, the park will be developed so site drainage is conveyed to the existing storm sewer system; however, a project drainage plan has not yet been prepared. As such, it is not known if there are downstream capacity constraints in the sewer system or if on-site detention of runoff is required prior to releasing it in the sewer system. An engineered drainage plan that includes a downstream sewer capacity analysis can address these issues. Any drainage plan should be prepared in tandem with the preparation of the park's site design and be coordinated with long-term erosion measures for the site.

Actual grading for the trail will exceed the 3 acres of impervious surfacing due to sidecasting of material. When this is added to the development of the 3.2 acre park site a total of 7.8 acres of land will be disturbed by the two Master Plan projects in the stage that precedes construction of the Corps of Engineers flood control channel. Any project that exceeds 5 acres of grading requires a Storm Water Pollution Prevention Plan (SWPPP) and must obtain a National Pollution Discharge Elimination System (NPDES) Permit from the Regional Water Quality Control Board (RWQCB). Beginning in July 2003 a SWPPP will be required for projects that disturb 5,000 square feet or more. The purpose of the SWPPP is to prevent erosion and stream sedimentation problems from development. An engineered drainage plan coordinated with an erosion control plan addressing both construction and post-construction phases of the project will provide the SWPPP. It must be submitted to the RWQCB for review and approval prior to land alteration activities of a project.

Another potential impact is sedimentation of the creek caused by uncontrolled drainage induced erosion. This impact is discussed under items IV.a and VI.b above. Mitigation measures BIO-1 and GEO-2 will also address this impact. The implementation of the measures below will reduce the impacts discussed above to less than significant levels.

## MITIGATION

**Mitigation Measure HYDRO-1.** To adequately control the additional surface drainage generated by the new Mabury Park facilities, the City of San José, Department of Public Works, Parks and Recreation Facilities Division shall have an engineered drainage plan prepared for Mabury Park prior to completion of construction plans for the project. At minimum, the drainage plan shall include the following performance standards:

- € All new drainage facilities and improvements shall be sized and designed according to engineered drainage calculations prepared for this watershed;
- € An engineering analysis of existing storm sewer inlets and downstream sewer capacity for those existing facilities receiving project runoff shall occur to determine if on-site detention is required to regulate runoff discharge prior to it leaving the site;
- € The design of any necessary drainage detention facilities shall be provided as part of the plan, including their location on the site; and
- € Measures to reduce the velocity of accumulated runoff, such as energy dissipaters and vegetated filter strips shall be designed and correctly sited to mitigate any potential erosion problems generated by increased runoff.

All requirements of the approved drainage plan shall be installed as part of the Master Plan facilities. These facilities shall be inspected by the City's Public Works construction inspector prior to project completion to ensure they are installed adequately.

**Mitigation Measure HYDRO-2.** To prevent drainage and erosion impacts from occurring during the construction phases of the project, as well as ensure all post-construction drainage measures are adequately implemented, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall have a SWPPP prepared based on the drainage plan and erosion control plan described in mitigation measures GEO-2 and HYDRO-1. The SWPPP shall be submitted to the RWQCB to obtain a NPDES Permit. All requirements of the NPDES Permit shall be followed during construction.

**Mitigation Measure HYDRO-3.** To ensure that the amount of impervious surfacing will not exceed that which the project drainage and erosion control plans can accommodate, the construction of the post-flood control trail alignment shall include the complete removal of all impervious and semi-impervious surfacing from the interim trail segments that will not be in use once the post-flood control alignment becomes operational.

## **IX. LAND USE AND PLANNING**

### **Discussion of Checklist Answers**

- a. The Master Plan will not divide an established community. The trail and the park will be provided on existing open space areas. The bridge between Education Park Drive and Cape Horn Drive will maintain the link between residential areas on opposite sides of Mabury Drive. The conversion of the 3.2-acre vacant lot to a neighborhood park will create a focal point for the neighborhoods on all sides of the North Jackson Avenue/Commodore Drive intersection and may stimulate more interaction among residents in the area. *This is a potentially beneficial impact.*
- b. The project is consistent with the *Penitencia Creek Master Plan* for the entire creekside park chain extending between Coyote Creek to the west and Alum Rock Park to the east. The site is zoned for water recharge and recreation. Trail uses and passive recreation are acceptable uses with the general plan designations and zoning designations of the various parcels that occur in the project site. While some of the trail improvements are within the riparian corridor, the *Penitencia Creek Master Plan* envisioned these encroachments as necessary exceptions to the City's riparian corridor setback policy.
- c. There are no habitat conservation plans or natural community conservation plans for this area.

### **DISCUSSION**

Creation of a creekside park chain has been consistently proposed by various agencies throughout the County since 1935. In 1977, the Berryessa Community, the County of Santa Clara, the City of San Jose and the Santa Clara Valley Water District prepared the *Penitencia Creek Master Plan* for the entire creekside park chain extending between Coyote Creek to the west and Alum Rock Park to the east. Design improvements for the park chain were divided up into seven reaches for ease of discussion and timing implementation.

As a result of this Master Plan, the City of San José, the County of Santa Clara County and the Santa Clara County Valley Water District entered into a tri-party agreement on July 6, 1981. This agreement defines the responsibilities for the joint use and development of the Penitencia Park Chain for park, recreation, open space, flood protection, and water conservation purposes. The development of Reach 6 of the creek corridor follows these earlier planning documents and agreements. The new plan has been expanded and refined to be consistent with new design standards, City policies and federal and State environmental regulations. It takes into account current informal uses of the site, the communities' current desires for the park, recent modifications to the site by the District for flood protection and the flood protection studies now underway by the US Army Corps of Engineers.

The City's Riparian Corridor Policy Study limits development in riparian corridors. Trails are allowed if they are setback at least 10 feet from the drip line of riparian tree vegetation wherever feasible. The policy allows an exception to this standard by allowing trails to encroach into riparian corridors when necessary to maintain continuity, such as accessing a bridge that crosses a creek. The plans show that, except for approaches to bridge crossings, most of the proposed trail routes are setback 10 feet or more from the riparian canopy. The exceptions include: 1) the Phase 1 alignment from North King Road to bridge #1, and 2) the isolated segment of the Phase 2 alignment between

North King Road and the Cape Horn Rive cul-de-sac. (Refer to Figure 3). Both of these trail sections will be constructed on an existing un-surfaced SCVWD maintenance roads and will not create a new encroachment into the corridor. They also provide trail continuity by creating a link between trail access points on North King Road and existing facilities that can be used by trail users. The segment of the Phase 1 alignment described above will join with an existing asphalt path that parallels Creekland Circle. The Phase 2 segment will provide a direct connection to Cape Horn Drive. For these reasons, these trail segments are consistent with the City's Riparian Corridor Policy.

## **X. MINERAL RESOURCES**

### **Discussion of Checklist Answers**

- a. The project contains no known mineral resources.
- b. Since the site does not contain mineral resources, no significant adverse effects on mineral resources are anticipated from implementation of the Master Plan.

## **XI. NOISE**

### **Discussion of Checklist Answers**

- a. At post-construction, the project will not generate noise levels in excess of General Plan standards for residential, park and playground uses. The City of San José has adopted two maximum noise levees for outdoor activities. An average day/night noise level (DNL) of 60 dBA has been adopted for the short-term exterior noise quality level. While a 55 dBA DNL as been adopted as the objective to reach over the long-term for the exterior noise quality level. In addition, a maximum DNL noise level of 76 dBA is the threshold level to avoid significant adverse health effects. The implementation of the Master Plan will generate passive recreational uses such as hiking and bicycling on the multi-use trail and picnicking and small group play in Mabury Park which include some active recreation uses. These types of activities will not generate DNL noise levels exceeding 60 dBA.
- b. The project will not cause excessive groundbourne vibration or noise.
- c. See item XI.a above.
- d. Project grading and construction activities will generate temporary increases in ambient noise levels affecting the surrounding residential area. It is expected that these uses will alter the noise environment by increasing the DNL to greater than 60 dBA. *This is a significant short-term impact.*
- e. The project is not located within an airport land use plan, nor is it located in the vicinity of a private airstrip.

## **DISCUSSION**

The Noise element of the City General Plan specifies 60 dBA as the maximum DNL noise level for outdoor residential and recreational uses, but recognizes that construction operations may exceed these levels in the short-term. Policy #9 in the Noise element states that "construction operations should use available noise suppression devices and techniques". The use of grading and paving equipment will generate noise that is not normally heard in this residential neighborhood. Noise increases associated with the use of construction equipment cannot be prevented but can be limited to times of the day that are least sensitive to surrounding residents and would effect the fewest number of people. They can also be minimized by adhering to the City's policy of noise suppression. The noise impact would be limited to the construction phases of the Master Plan and not be a long-term effect of the project. While construction of the Phase 1 trail will be followed by construction of the

Phase 2 and Phase 3 trail alignments, the separation of several years between these three construction phases will not create an on-going long-term activity but rather three defined short-term periods when excessive noise will occur.



## MITIGATION

**Mitigation Measure NOISE -1.** To reduce construction related noise impacts to the surrounding residential area to insignificant levels, the City of San José, Department of Public Works Parks and Recreation Facilities Division shall:

- € Require all construction equipment to use mufflers and related noise suppression devices and to have them regularly maintained in good working order.
- € Ensure that all project construction activities, both on- and off-site, be limited to the hours of 7:00 a.m. to 7:00 p.m. weekdays.
- € Post a sign that is visible to persons walking or driving by the edge of the site where active construction is occurring that provides the name of contact person (e.g. disturbance coordinator) and phone number to call if residents are experiencing noise problems in the area. The sign shall remain posted during the entire construction phase at that portion of the site.

## XII. POPULATION AND HOUSING

### Discussion of Checklist Answers

- a. The project will not induce population growth as it proposes only limited recreational uses to meet the needs of local residents.
- b. The project will not displace any housing.
- c. The project will not cause the displacement of people or housing.

## XIII. PUBLIC SERVICES

### Discussion of Checklist Answers

- a. Implementation of the Master Plan includes increased public access along the Penitencia Creek corridor and a new neighborhood park facility improvements, such as the multi-use trail and bridges, a youth play ground and picnic areas will not be structurally significant to be considered a high priority for fire fighting equipment/resources. The restroom will require fire-fighting equipment, however, the fire protection in this area is considered adequate for the area, and therefore the development of these new facilities will not be a significant impact on the services provided by the City of San José Fire Department.
- b. The creation of new public spaces that will be used by people will require an incremental increase in police protection and related services. However, the type of uses that will occur in these new public spaces are not those that will require a significant level of new police services.
- c. No school services are needed for this project.
- d. The Master Plan will create additional public park facilities to serve City residents and not result in a need to provide additional park and recreational facilities.
- e. The other public facilities that may be required to serve the project are public drainage facilities, such as maintenance or minor improvements of the storm drainage system. The Master Plan facilities will not require significant improvements or maintenance activities for the public drainage system of with the implementation of Mitigation Measures HYDRO-1.

#### **XIV. RECREATION**

##### **Discussion of Checklist Answers**

- a. The new multi-use trail along Reach 6 of the creek corridor may increase visitation to nearby recreational areas, such as other portions of the Penitencia park chain. Due to the passive nature of uses at Reach 6, the increase in park use at adjacent areas is not deemed to cause significant impacts on such resources.
- b. The development of Master Plan facilities may have negative effects on special status wildlife, air and water quality, surface drainage and erosion. These issues are discussed above in various sections and all impacts and potential impacts can be mitigated to levels of insignificance.

#### **XV. TRANSPORTATION/TRAFFIC**

##### **Discussion of Checklist Answers**

- a. The new park facilities and 26-space parking lot at Mabury Park will generate additional traffic through the North Jackson Avenue/Commodore Avenue intersection and nearby streets and intersections. In addition, some users of the multi-use trail may drive and park on streets within the vicinity of Reach 6 to access the trail. The level of traffic generated by the park and the trail will not be substantial in relation to the capacity of the street and intersections in the immediate area. According to the City Transportation Department, traffic surveys conducted at this intersection in 2001 show North Jackson Avenue has an average weekday traffic level of 17,200 trips/day. The segment of Commodore Avenue west of the intersection has an average weekday trip level of 2,150 trips/day. The segment of Commodore east of the site has a much lower average trip rate of 790 trips/day. The intersection meets warrants for installation of a traffic signal; however there are 160 other warranted intersections in the City that are scheduled for new signalization ahead of the Jackson/Commodore intersection. When the signal is installed, it will address existing traffic impacts that occur at the intersection as well as accommodate future traffic. The additional traffic generated by use of Master Plan facilities will be insignificant when compared to existing traffic. The types of recreational uses provided by the Master Plan are not those that generate most trips to the site during A.M. or P.M. traffic peak hours. Park use is expected to be highest during weekday afternoons prior to the start of the P.M. peak hour (5:00 P.M.) and on weekends. For these reasons the increase in traffic will be a less than significant impact.
- b. The City Transportation Department has not conducted a level of service study on the North Jackson/Commodore Drive intersection, which is the intersection that would be most effected by Master Plan generated traffic. However, development and use of the park and the multi-use trail is not expected to affect traffic on roads and highways as the limited size and facilities at Mabury Park will be limited to family and small groups and uses along the trail will be passive and developed to encourage alternative forms of transportation. Trail users will be pedestrians, equestrian and bicyclists who will not be operating motor vehicles on public streets. The location and size of Mabury Park make it a neighborhood park, which is oriented to users in the neighborhoods surrounding the immediate area. Many of the park users will walk or ride a bicycle to this park. These forms of alternative transportation will not add to vehicular traffic on area road network.
- c. The project will not affect air traffic patterns.
- d. The project will not generate traffic hazards.
- e. The project will not affect emergency access to the site.

- f. Development of the Mabury park site includes a parking lot for 26 vehicles and a turn-around area that could be used for drop-off and pick-up of children or other non-drivers. This amount of parking is adequate for a 3.2-acre park site. The park and the trail proposed for the Reach 6 corridor are within a neighborhood that includes a parking lot at Penitencia Creek County Park and on-street parking.

## **XVI. UTILITIES AND SERVICES SYSTEMS**

### **Discussion of Checklist Answers**

- a. The project will not cause wastewater treatment requirements to be exceeded due to the small size of the project and limited public facilities (restroom and drinking water).
- b. The project will not adversely affect existing wastewater treatment facilities as only one restroom and drinking fountains are proposed.
- c. The project will not require the construction of new storm water drainage facilities due to the small amount of impervious surfaces created by the project that would be served by storm sewers. Only Mabury Park will need to be served by storm sewers. The runoff from the multi-use trail will sheet flow into the stream channel.
- d. The City of San José has sufficient water supplies available to provide services to the restroom, drinking fountains and irrigation water.
- e. The project will not affect the City's wastewater treatment facilities due to the small size of the project.
- f. The project will not generate significant amounts of waste that would adversely affect landfill capacities.
- g. Solid waste will be collected by City Parks maintenance staff who will have the waste transported to area landfills as a regular part of park maintenance.

## SECTION V. ENVIRONMENTAL DETERMINATION

Pursuant to Sections 15152 and 15168 of the State CEQA Guidelines, this Initial Study has been prepared to evaluate the potential impacts to the proposed project.

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<b>X</b>	I find that the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a “potentially significant effect” or “potentially significant unless mitigated” impact on the environment, but at least 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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Signature

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Date

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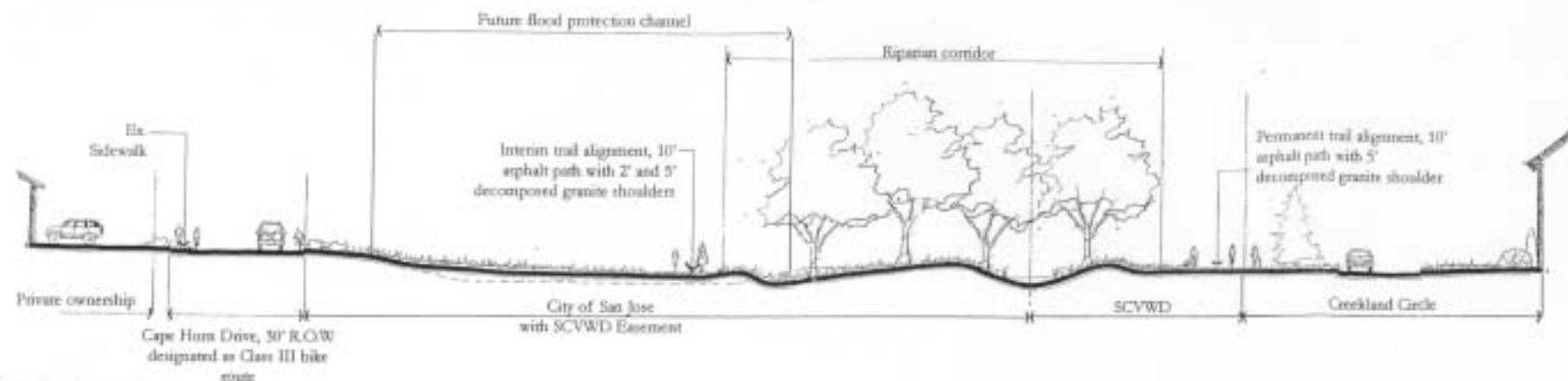
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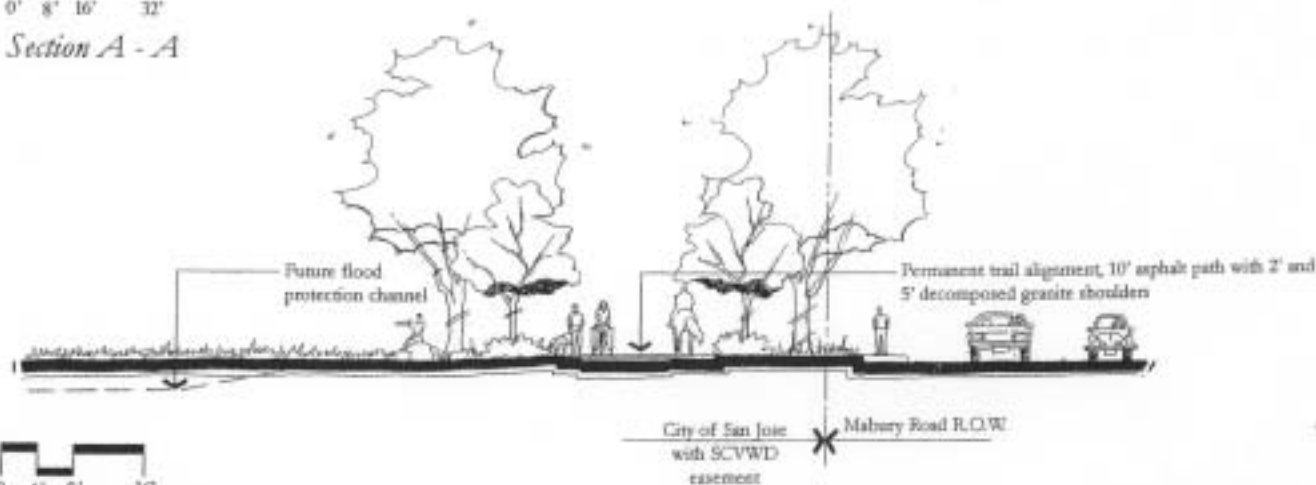
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## Attachment 1

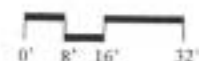
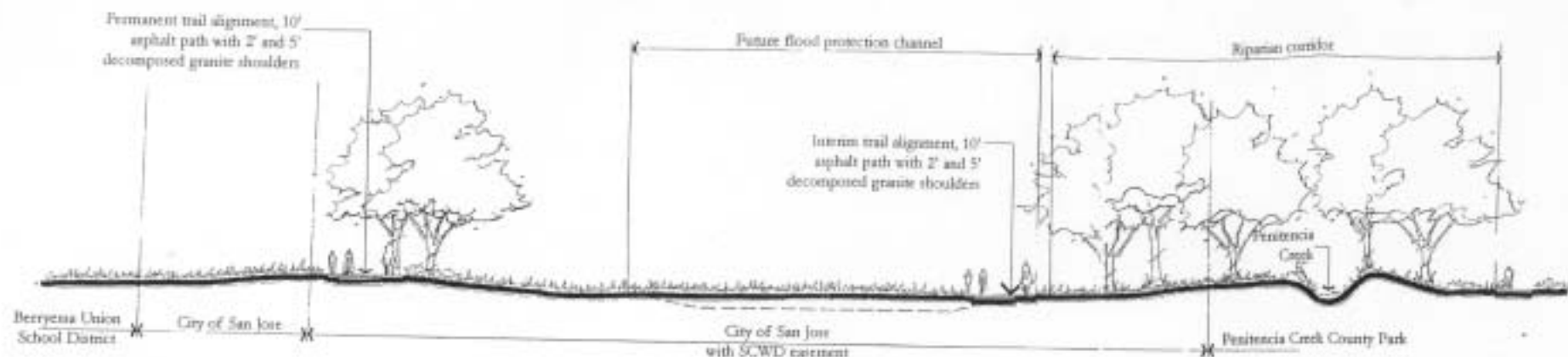
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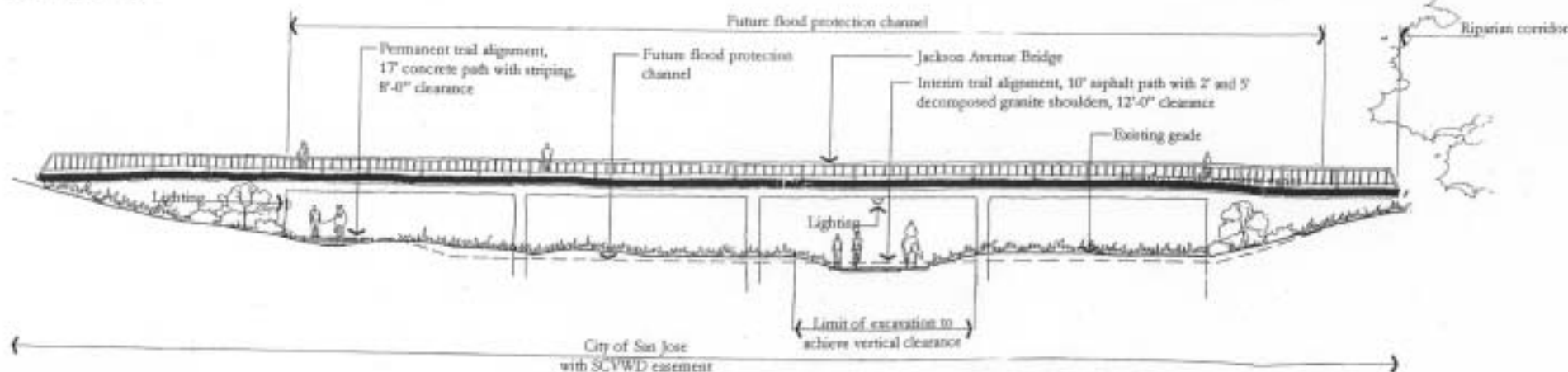
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Section B - B



Section C - C

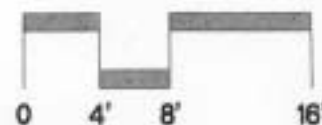
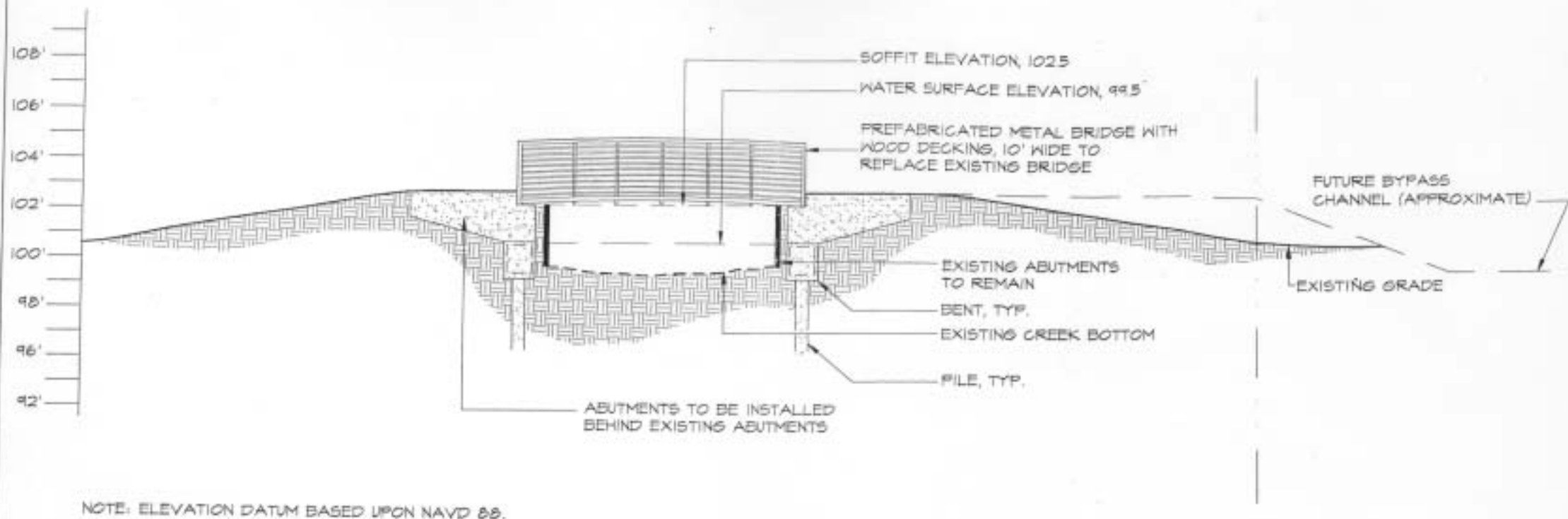


Section D - D

## Attachment 2

### Elevations of the Bridges





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Callender Associates  
Landscape Architecture

311 Seventh Ave.  
San Mateo, CA 94401  
T 650.376.1313

Peter Callender

# Mabury Park Master Plan

## Bridge #1 Elevation

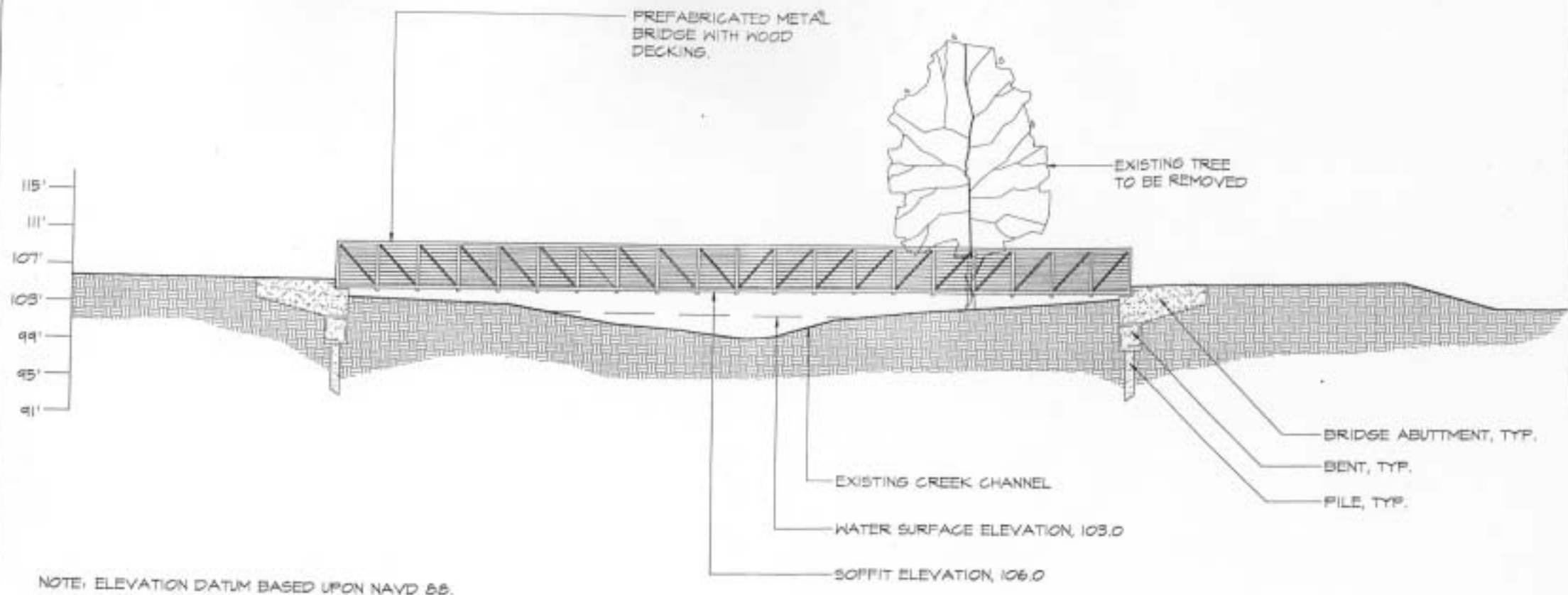
City of San Jose

DATE  
4/18/02

SCALE  
AS SHOWN

DRAWN BY  
SW

DRAWING NO.  
00032BRELEV



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Peter Callender

# Mabury Park Master Plan

Bridge #2 Elevation

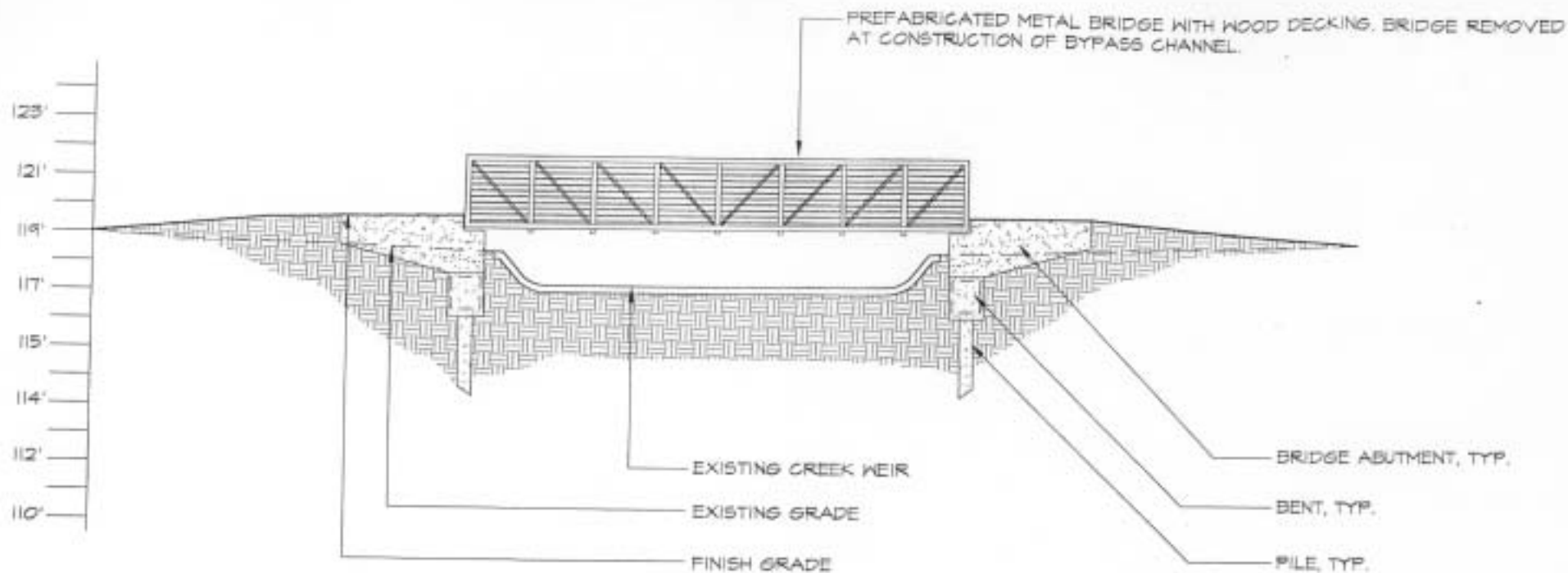
City of San Jose

DATE  
4/18/02

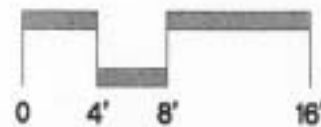
SCALE  
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SW

DRAWING NO.  
00032BRELEV



NOTE: ELEVATION DATUM BASED UPON NAVD 88.



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# Mabury Park Master Plan

Bridge #4 Elevation

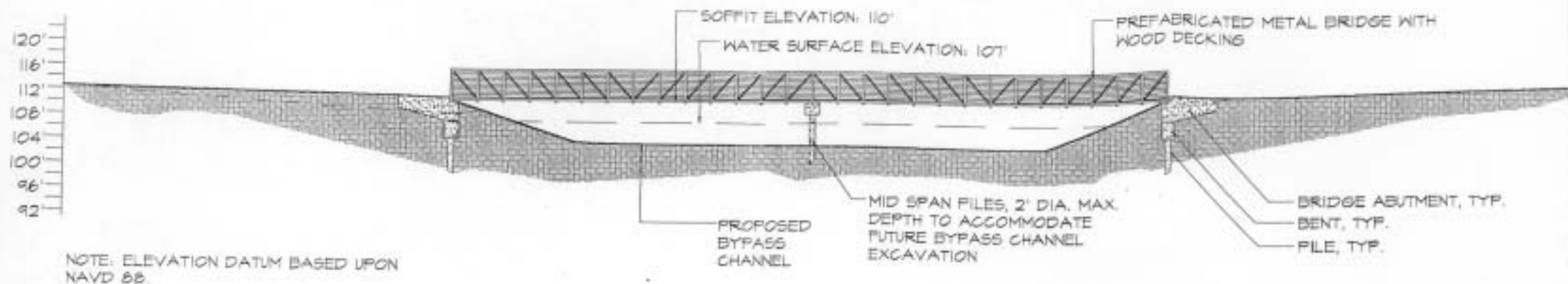
City of San Jose

DATE  
4/18/02

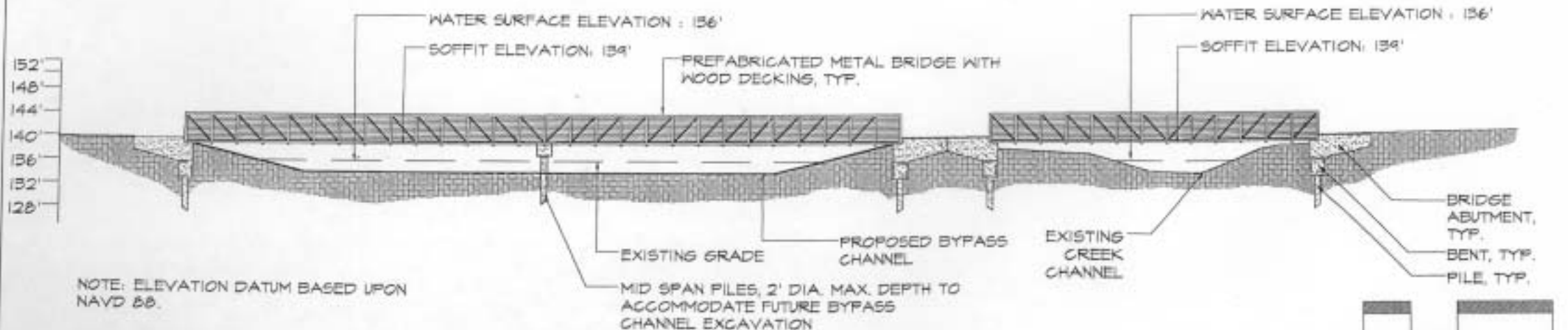
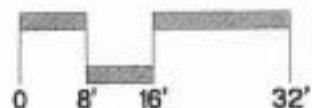
SCALE  
AS SHOWN

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SW

DRAWING NO.  
00032BRELEV



Bridge #3



Bridge #5 and #6



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Peter Cellender

# Mabury Park Master Plan

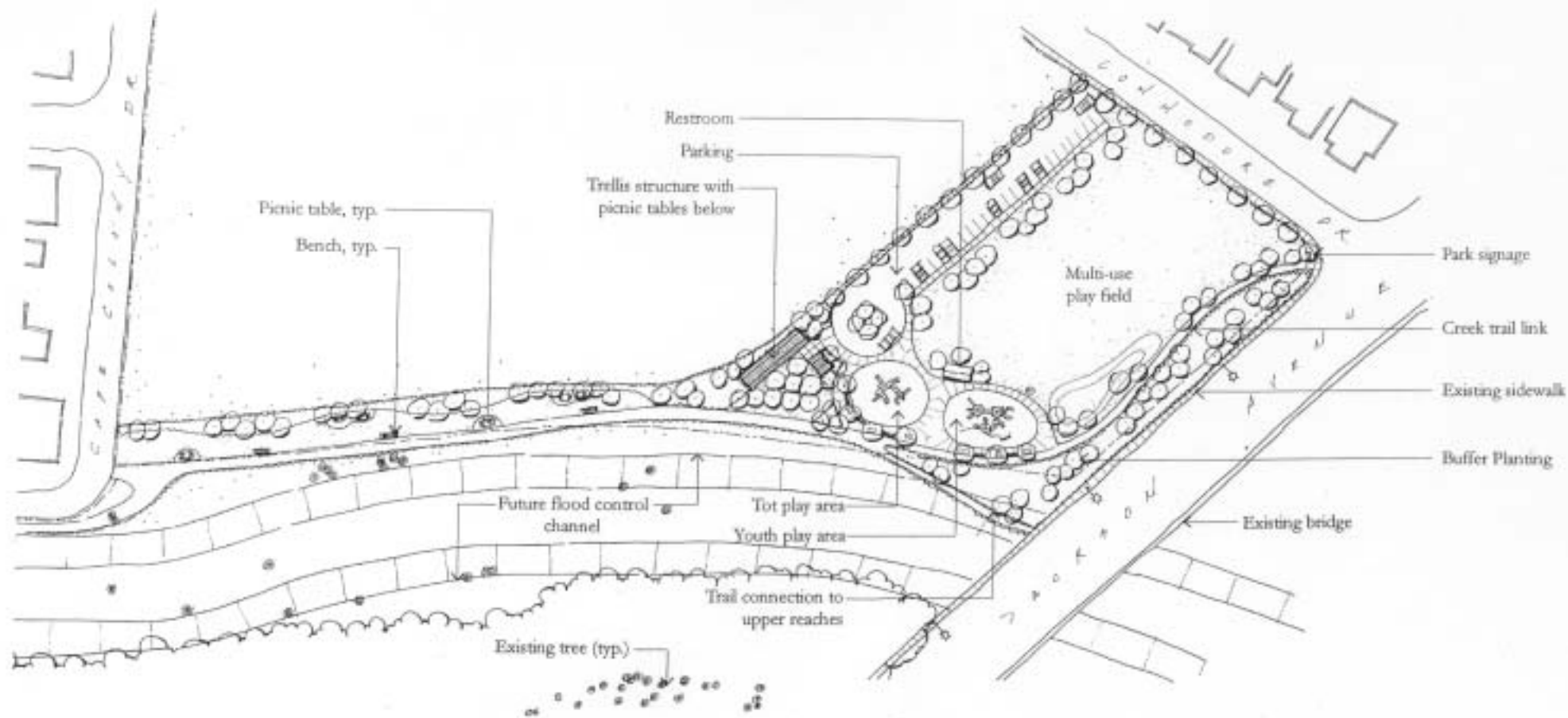
## Bridge #3 and Bridge #5 and #6 Elevation

City of San Jose

DATE	SCALE	DRAWN BY	DRAWING NO.
4/18/02	AS SHOWN	SW	00032BRELEV

## Attachment 3

### Detailed Preliminary Site Plan of Mabury Park



Mabury Park



0 60' 120'

Attachment 4

Assessors Parcel Maps

43 TRACT N° 5817 - HIDDEN GLEN NORTH VALLEY N° 8 45

BOOK 254 PAGE 42

COMPILED BY COUNTY ASSESSOR - SANTA CLARA COUNTY, CALIFORNIA  
 FOR THE YEAR 1991  
 THE COUNTY OF SANTA CLARA  
 ANNE E. GARDNER - ASSESSOR

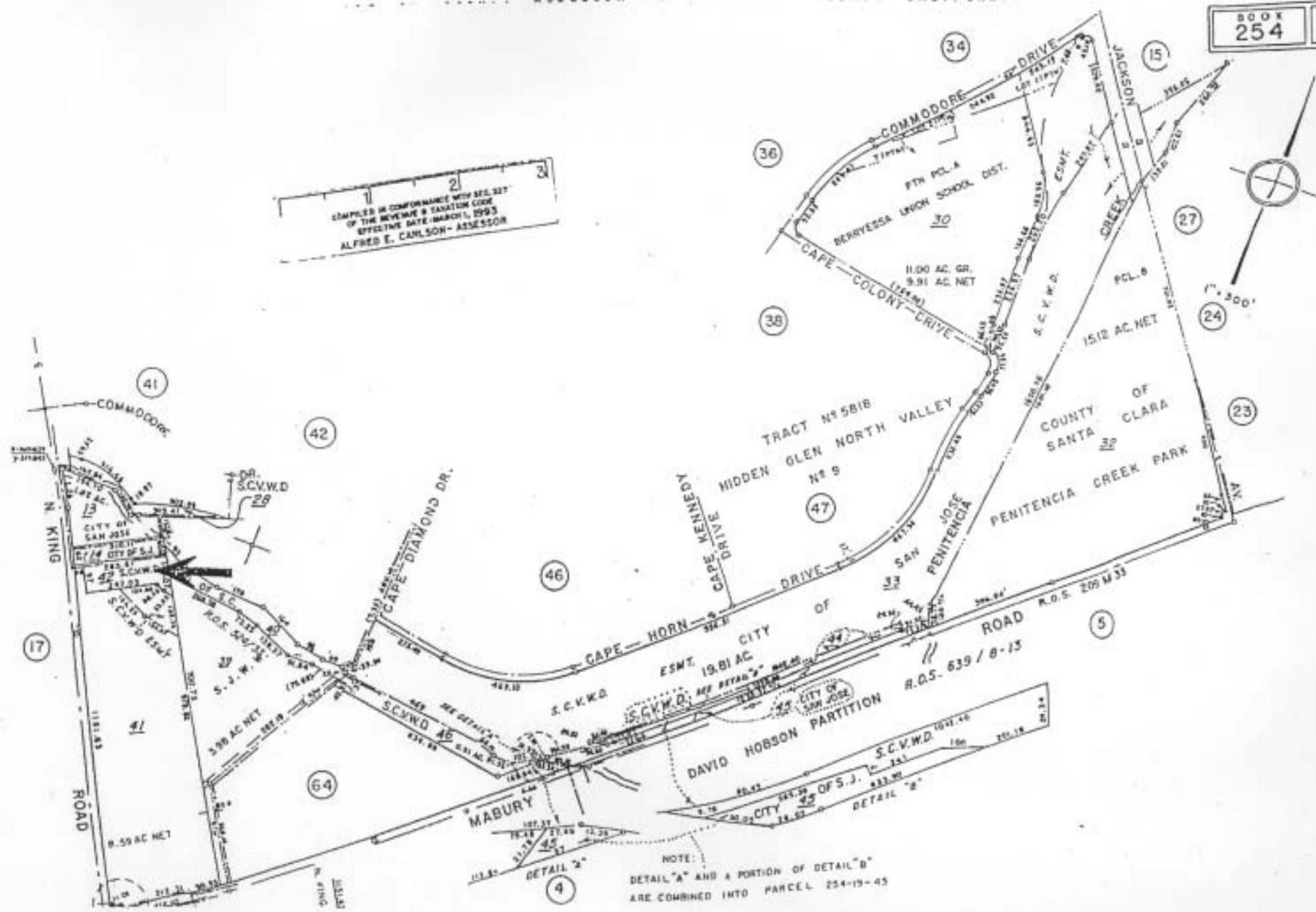


46 TRACT N° 5818  
 HIDDEN GLEN NORTH VALLEY N° 9

TRACT N° 7968  
 CAPE DIAMOND



COMPILED IN CONFORMANCE WITH SEC. 327  
OF THE REVENUE & TAXATION CODE  
EFFECTIVE DATE: MARCH 1, 1993  
ALFRED E. CARLSON - ASSESSOR



## Attachment 5A

### Preliminary Geotechnical/Geologic Report

# GEOFORENSICS INC.

Consulting Soil Engineering

561 Pilgrim Dr., Suite D, Foster City, California 94404

Phone: (650) 349-3369 Fax: (650) 571-1878

File: 200273

October 28, 2001

Callander Associates  
311 Seventh Avenue  
San Mateo, CA 94403

Attention: Mark Slichter

Subject: **Mabury Park Master Plan/  
Penitencia Creek Park Chain Reach 6  
Jackson Avenue @ Commodore Drive  
San Jose, California**

Dear Mr. Slichter:

in accordance with your authorization, we have performed a preliminary geotechnical and geologic evaluation of the subject site. This report summarizes the conditions we observed, and identifies the potential geotechnical and geologic conditions which may affect the development of the subject site. Note that specific construction recommendations for the site development are not provided in this report, and will require subsurface investigation work to develop design criteria.

## **BACKGROUND**

### **Site Location and Project Description**

The Mabury Park/Penitencia Creek Park Chain Reach 6 property is an irregularly shaped site located on relatively level terrain within the northern Santa Clara Valley, as shown on the Site Location Map - Figure 1a (attached at the end of this report) Upper Penitencia Creek runs through the center of the property, draining towards the southwest. Existing park land (Penitencia Creek Park) is located at the northeastern corner of the property, to the east of the creek. A large expanse of undeveloped open space is located on the west side of the creek.

The Maybury Park/Penitencia Creek Park Chain Reach 6 project is the latest in a series of trails along Penitencia Creek linking Alum Rock Park to Coyote Creek. This segment's improvements involve multi-use trails, pedestrian bridges, interpretive/educational areas, and a three acre neighborhood park (see attached Figure 1b - Site Layout).

The multi-use trails will include a striped asphalt path with decomposed granite shoulders on either side, and will be designated to accommodate pedestrians, bicyclists, and equestrians in accordance with applicable laws, ordinances, and policies. It is the intent of the trails to provide access to future trail reaches and to adjacent neighborhoods and surface streets.

File: 200281  
October 28, 2001

The interpretive/educational areas will be located adjacent to the multi-use trail and will be used to educate trail users about the site's flora, fauna, and history. The areas will include educational signage, decomposed granite surfacing, and seating.

Mabury park, a three acre park site, will provide the adjacent neighborhoods an active and passive use park connected to the Penitencia Creek trail system and the nearby Penitencia Creek County Park. Mabury Park is located at the corner of North Jackson Street and Commodore Drive and will include off street parking for park users, an open turf area, shade trees, buffering plantings along Commodore and North Jackson, restroom, and two children's play areas with associated equipment.

## **GEOTECHNICAL AND GEOLOGIC EVALUATION**

### **Purpose and Scope**

The purpose of our study was to evaluate the existing condition of the subject site in order to identify any potential geotechnical or geologic hazards which may affect the proposed development of the site. In order to achieve this purpose, we have performed the following scope of work:

- 1 - Geologic Map review;
- 2 - Site reconnaissance and mapping;
- 3 - Meeting attendance with City Planning personnel;
- 4 - Liaison with your office.

The findings of our scope of work have been summarized in this report.

### **Regional and Site Geology**

Regional geologic mapping by Wentworth, Blake, McLaughlin, and Graymer (1999) indicates that the Mabury Park property is underlain by Holocene age (up to 11,000 year old) alluvial fan deposits (see Figure 2, Regional Geologic Map). Younger deposits are mapped along the immediate flank of the creek and older deposits beyond. Previous mapping by Helley and Wesling (1990) describes the younger alluvial fan deposits as poorly sorted, dense, sandy or gravelly clay. The older alluvial fan deposits are composed of medium dense, gravelly sand and clayey gravel grading upward into sandy or silty clay.

### **Site Reconnaissance**

Our Geotechnical Engineer and Engineering Geologist completed a site reconnaissance of the property on November 3, 2000.

We understand that there has historically been active farming on the subject parcels, with some farm structures located on the adjacent Berryessa School district site off the northern corner of the subject project area. At the time of our visit, there were no structures apparent on that parcel, or any portion

of the subject site on the western side of the creek. Further, we did not observe any evidence of previous structures on these sites.

A low level of water was flowing through Upper Penitencia Creek at that time. An embankment or levee has been constructed along the northwest edge of the creek. Evidence of slumping or landsliding was not observed along the flanks of the levee or natural creek bank.

There is currently a raised trail which runs roughly parallel, and west of, Upper Penitencia Creek. The trail appears to have been originally constructed in order to assist as a secondary berm for flood control. The distance between the trail and creek narrows from the north to the south of the project, with the raised nature of the trail also diminishing to the south.

The surface materials exposed across the site consist of a silty clayey sand across most of the site, with exposed sandy gravels exposed where water flows or other excavations have previously cut through the upper topsoils.

### **Seismicity**

The greater San Francisco Bay Area is recognized by Geologists and Seismologists as one of the most active seismic regions in the United States. Three major fault zones pass through the Bay Area, in a northwest direction, which have produced approximately 12 earthquakes per century strong enough to cause structural damage. These faults are part of the San Andreas Fault System, a major rift in the earth's crust that extends for at least 700 miles along western California. The San Andreas Fault System includes the San Andreas, Hayward, and Calaveras Fault Zones.

According to Blake (2000), the Hayward and Calaveras faults are located about 3.5 and 6 miles to the northeast of the property, respectively. The San Andreas fault is located about 15 miles to the southwest of the property. These faults are considered to be active (Hart and Bryant, 1997), having had surface displacements within Holocene time (about the last 11,000 years).

## **CONCLUSIONS AND RECOMMENDATIONS**

### **General**

Based upon our preliminary geotechnical and geologic assessment of the site, it is our opinion that the site is well suited for the intended purpose. No significant geotechnical or geologic hazards are anticipated at the site. However, future investigation will be required to provide proper design recommendations for the proposed structures.

### **Seismic Hazards**

**Ground Rupture** - Based upon the results of this investigation, known active or potentially active faults do not pass through the subject property. In our opinion, it is unlikely that the property will be damaged by primary ground rupture due to faulting.

**Ground Shaking** - The Hayward fault, however, is located about 3.5 miles to the northeast of the property. It is reasonable to assume, consequently, that the property will be subject to strong ground shaking from a major earthquake on the Hayward fault or one of the other active or potentially active faults in the Bay Area during the design life of the park and trail facilities.

Based upon a deterministic analysis of preliminary data for selected California faults by Blake (2000), the Hayward fault presents the most significant seismic shaking hazard to the property with a maximum earthquake magnitude of 6.4 Mw. Using a fault attenuation relationship for alluvium by Campbell and Bozorgnia (1994/97), a peak site acceleration of 0.41g is predicted for the property from an earthquake on the southeast extension of the Hayward fault. Blake (2000) indicates that the property has experienced a maximum site acceleration of 0.40g during the time period from 1800 to 1995, from the 1865 Earthquake epicentered on the Hayward fault about 5 miles from the site.

Blake (2000) indicates that the subject site experienced a Modified Mercalli shaking intensity of VIII during the 1989 Loma Prieta Earthquake. Properly designed buildings using the Uniform Building Code (ICBO, 1997) and sound engineering practices should mitigate the damaging effects of ground shaking. As a minimum, the proposed structures should be designed using current building code requirements (UBC seismic design values would be provided by the proposed subsurface investigation).

The U.S. Geologic Survey (1999) recently cited a 70 percent probability that a Richter magnitude 6.7 or greater earthquake, similar to the 1989 Loma Prieta Earthquake, will occur on one of the active faults in the San Francisco Bay Region by the year 2030. An 18 percent probability was specifically attributed to the nearby Hayward fault that a large earthquake will occur along its trace in the next 30 years.

**Liquefaction** - Liquefaction most commonly occurs as a result of earthquake shaking in loose fine sands and silty sands associated with a high ground water table. Based upon mapping by Wentworth, Blake, McLaughlin, and Graymer (1999), the property is likely underlain by dense, sandy or gravelly clay, or medium dense, gravelly sand and clayey gravel grading upward into sandy or silty clay. If dense clayey soils underlie the property, liquefaction is unlikely to occur. The Association of Bay Area Governments (1980a), however, indicates that the subject property is located in an area with a moderate susceptibility to liquefaction. Prior to design of any permanent structures, it will be necessary to drill borings to determine the actual potential impact, if any, of liquefaction on the proposed development. At this time, we anticipate that such impacts can be readily mitigated to a reasonable degree with simple design and construction techniques currently in practice in the Bay Area.

**Ground Subsidence** - Ground subsidence may occur when a poorly consolidated soil densifies as a result of earthquake shaking. If the property is underlain by dense clayey soils (as mapped), then the hazard due to ground subsidence would be very low. However, the results of the subsurface investigation program (borings) will help to quantify the degree to which the subject site is susceptible to subsidence.



**Lateral Spreading** - Lateral spreading may occur when a weak layer of material, such as a sensitive silt or clay, loses its shear strength as a result of earthquake shaking. Overlying blocks of competent material may be translated laterally towards a free face. Since a free face does not occur on the property, the hazard due to lateral spreading is, in our opinion, considered to be negligible.

**Tsunamis, Seiches, and Flooding** - The subject property is located at an elevation removed from the hazard of inundation by tsunamis (Ritter and Dupre, 1972). The Association of Bay Area Governments (1980b) indicates that the subject property is located in an area with a low susceptibility to seiches and flooding caused by dam failure.

### **Anticipated Geotechnical Conditions**

The subject site is underlain by relatively granular materials which will provide good subgrade materials for support of the proposed parking areas, and for the proposed trail. These granular soils will also provide good bearing soils for foundation construction, however, they are potentially subject to erosion in the upper few feet. Deeper down-cutting will be mitigated by the presence of large cobbles in the soils which will quickly provide a stable flow base at depths of about 3 feet below current grades.

It is expected that these soils will permit the proposed bathroom facility to utilize slab-on-grade construction techniques. Pier and grade beam construction is not anticipated, unless required for construction proximate to areas of potential creek scour.

Potential adverse conditions may be experienced if attempting to compact the silty near surface soils when they are excessively wet. Therefore, it may be advantageous to time construction for the summer or fall months, rather than perform the work during periods of potentially wet weather, or while ground water levels are relatively high.

Based upon the anticipated high ground water levels at the site, it may also be difficult to excavate to depths greater than about 3 to 5 feet. Excavations will also be unlikely to remain stable to heights greater than 3 feet due to anticipated lack of binder (clay) in the soils. Excavations will also be difficult to cut cleanly due to the presence of large cobble sized rocks scattered throughout the soils.

While no relic structures appear to have existed on the subject site in the past, it is possible that there may be areas of subsurface soil disturbance from the previous use of the land. It is possible that old trash pits, or other buried conditions may exist at the site. Such conditions may not be identified by conventional geotechnical subsurface investigations, and may not be discovered during the course of construction. Such features may present a future maintenance issue for the park, if they actually exist.

### **Supplemental Investigative Work**

Although the site geotechnical and geologic conditions appear to be quite favorable for construction, a program of subsurface exploration will be required in order to confirm these conditions, and to provide geotechnical recommendations for design and construction. Due to the excellent site

File: 200281  
October 28, 2001

characteristics, it is our opinion that further studies can be limited to simple boring type explorations for the specific proposed improvements (e.g. bathrooms, pavements, bridges, etc.). Our office has provided a scope of services for conducting such investigative work.

### LIMITATIONS


This report has been prepared for the exclusive use of the addressee, the City of San Jose, their architects and engineers for aiding in the design and construction of the proposed development. It is the addressee's responsibility to provide this report to the appropriate design professionals, building officials, and contractors to ensure correct implementation of the recommendations.


The opinions, comments and conclusions presented in this report were based upon information derived from our field reconnaissance and map review. Conditions may vary from those anticipated, therefore a program of subsurface exploration has been recommended. Such variations, if encountered, may result in changes to our recommendations and possibly variations in project costs.

Should any additional information become available, or should there be changes in the proposed scope of the work as outlined above, then our office should be supplied with that information so as to make any necessary changes to our opinions and recommendations. Such changes may require additional investigation or analyses, and hence additional costs may be incurred.

Our work has been conducted in general conformance with the standard of care in the fields of geotechnical engineering and engineering geology currently in practice in the San Francisco Bay Area for projects of this magnitude and nature. We make no other warranty either expressed or implied. By utilizing the recommendations within this report, the addressee acknowledges and accepts the risks and limitations of development at the site as outlined in this report.

Respectfully Submitted;  
GeoForensics, Inc.

  
Daniel F. Dyckman, PE, GE  
Senior Geotechnical Engineer, GE 2145

  
Steven F. Connelly, CEG  
Senior Consulting Engineering Geologist

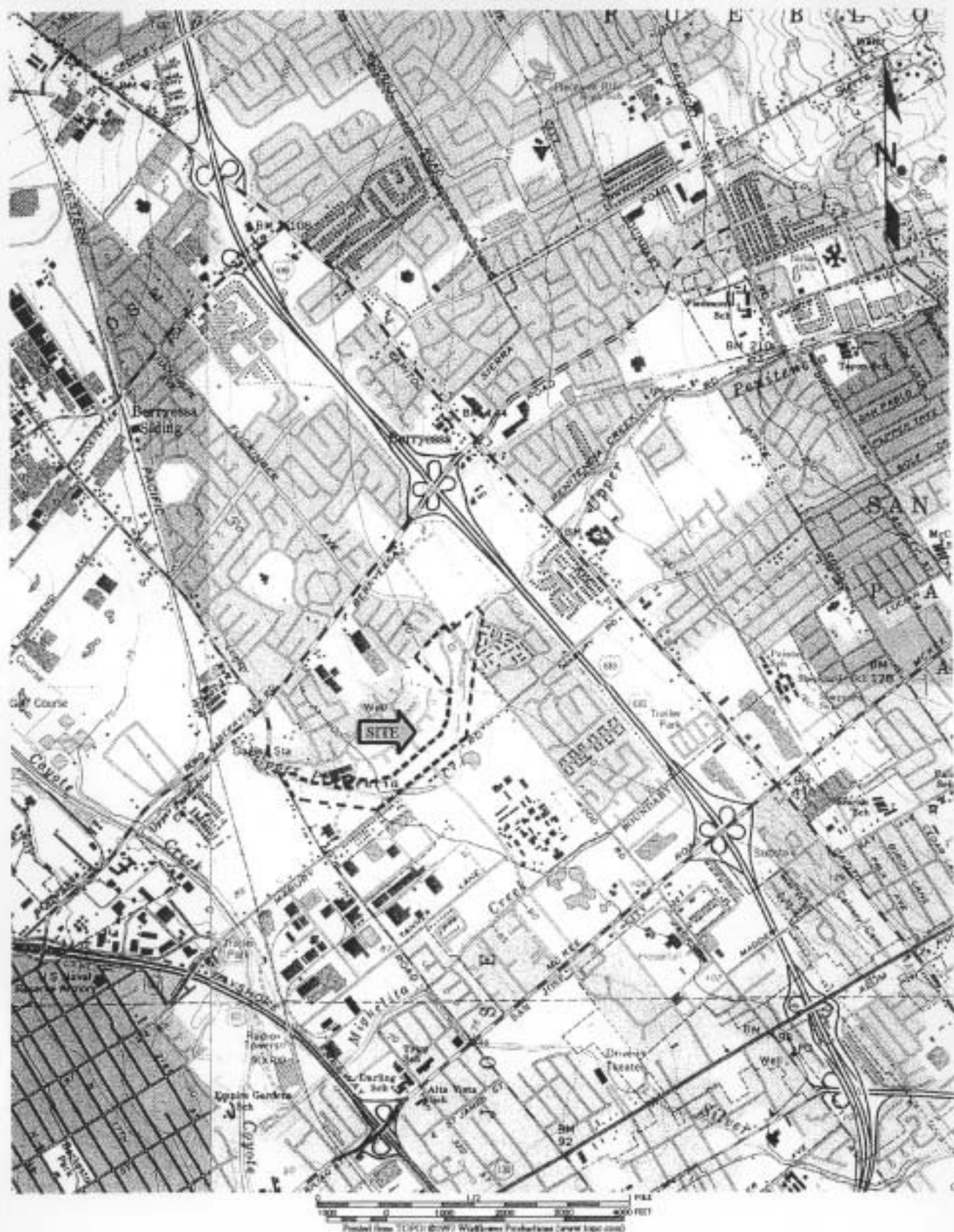


cc: 10 to addressee



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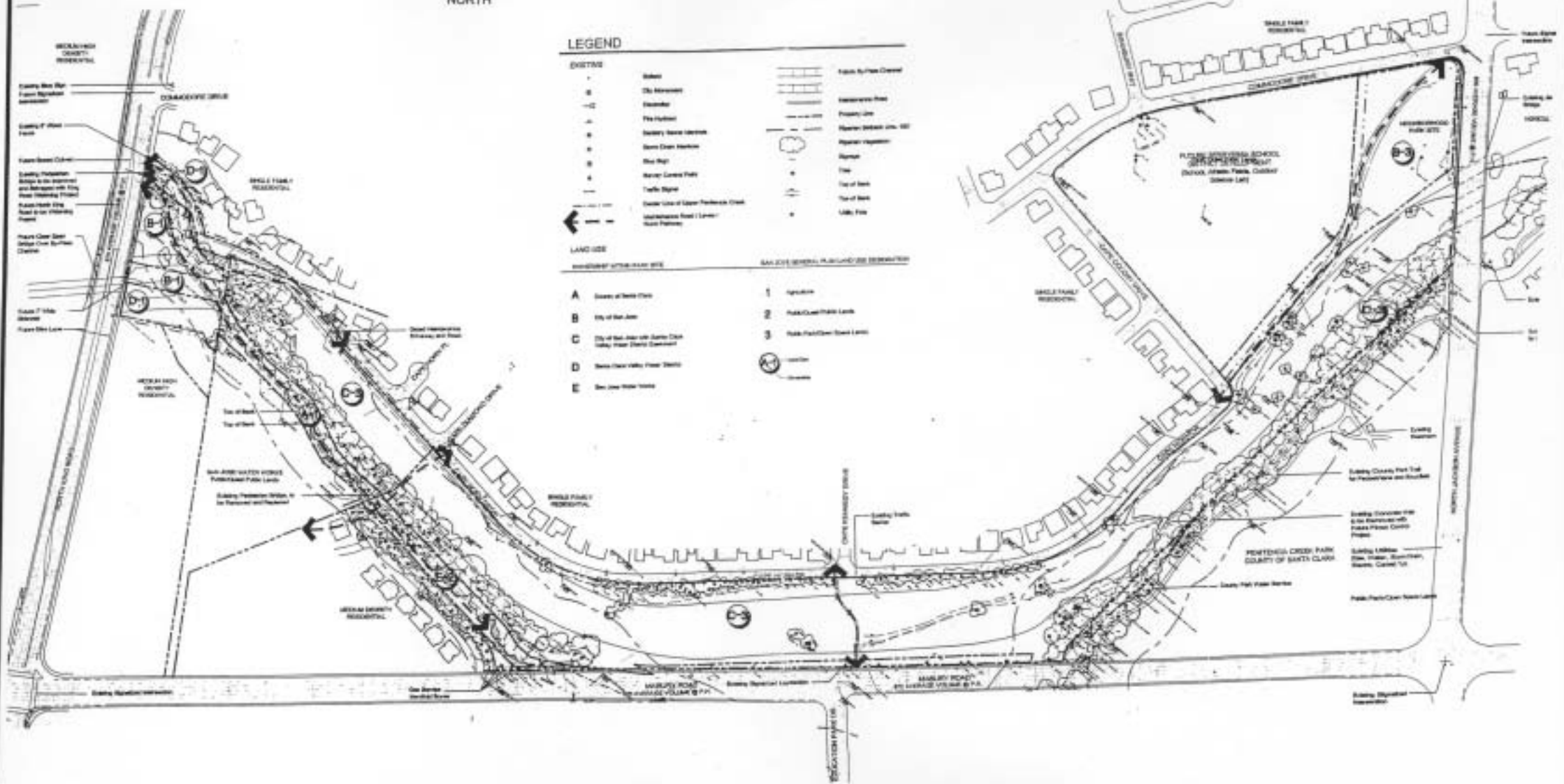


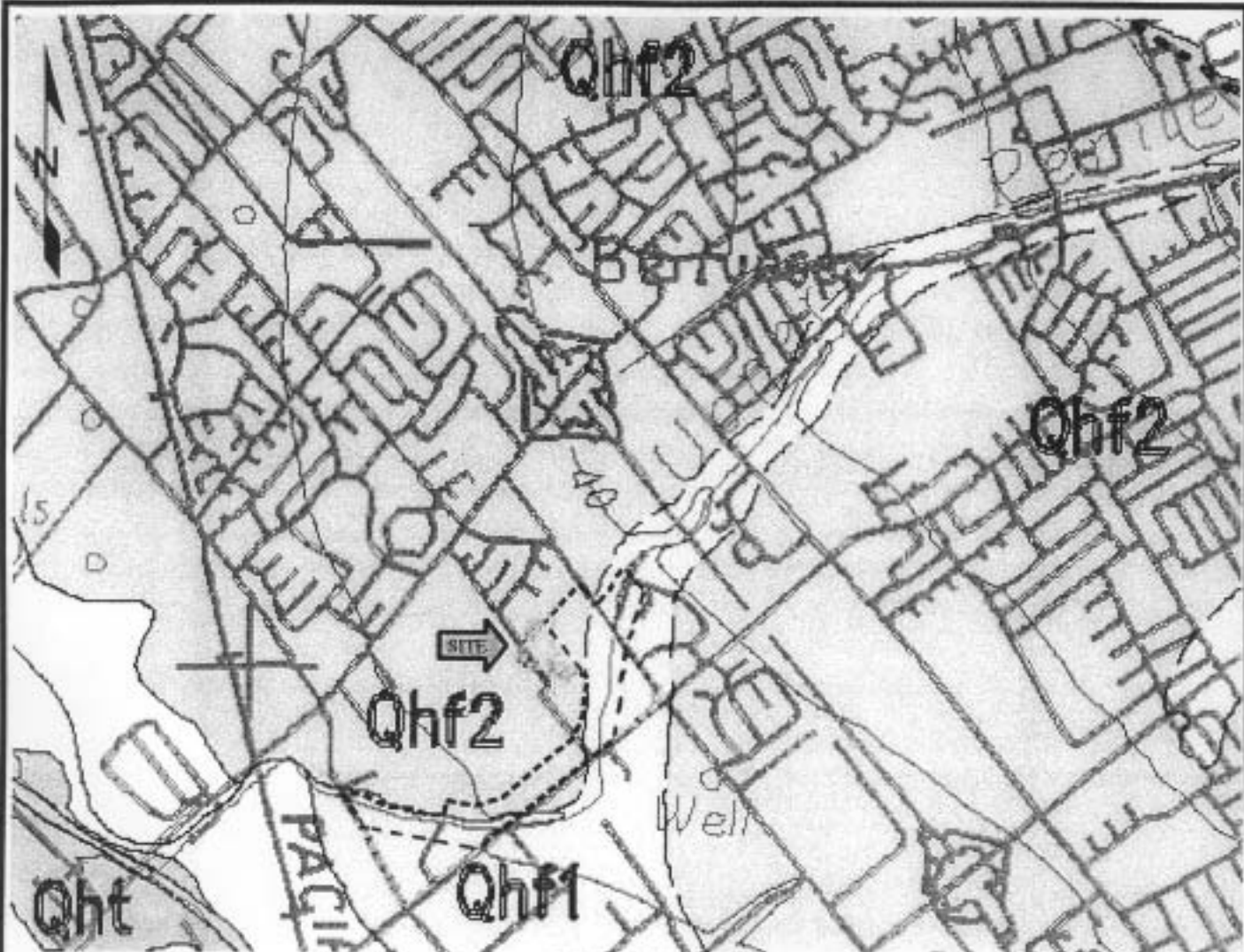
# **GEOFORENSICS, INC.**

561 Pilgrim Dr., Suite D, Foster City, CA 94404

Tel: (650) 349-3369 Fax: (650) 571-1878

Figure 1. Site Location Map





#### EXPLANATION

	Geologic Contact, dashed where approximate, dotted where concealed	Qhf1	Alluvial Fan Deposits, Younger
	Fault Trace, dashed where approximate, dotted where concealed, queried where uncertain	Qhf2	Alluvial Fan Deposits, Older
	Thrust or Reverse Fault	Qht	Stream Terrace Deposits
	Strike and Dip of Bedding		
	Strike and Dip of Foliation		

Source: Wentworth, Blake, McLaughlin, and Graymer, 1999

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Figure 2, Regional Geologic Map

## Attachment 5B

Preliminary Geotechnical/Geologic Report Supplement



File: 200273

November 12, 2002

Callander Associates  
311 Seventh Avenue  
San Mateo, CA 94403

Subject: **Mabury Park Master Plan/Penetencia Creek Park Chain Reach 6  
Jackson Avenue @ Commodore Drive  
San Jose, California  
GEOTECHNICAL REPORT SUPPLEMENT**

Dear Mr. Slichter:

This letter has been prepared to supplement our previous report to provide further information regarding the geotechnical impact of bridges at various locations along the reaches of the project.

## Project Area Adjustments

The project site limits have been revised since our original report was issued in 2001. The current site limits now include a small section along the creek which is northeast of Jackson Road. See the attached Figure 1 for current project limits.

## Bridges

Six bridges are proposed for various stages of the project at various locations along the creek alignment. It is anticipated that bridge foundations will consist of conventional spread footings which bear directly on dense alluvial soils. These alluvial soils will provide good bearing surfaces upon which to support the bridge abutments.

It will be necessary to embed the foundation elements more deeply than a normal foundation to limit potential undermining. Rock rip-rap (consisting of on-site cobbles and boulders) should be used as an "armor-plating" to minimize erosion rates around bridge abutments in areas prone to seasonal flooding.

As discussed in our original report, the presence of large diameter cobbles in the soils below a depth of 3 feet will necessitate open pit construction. Ground water is likely to be encountered in excavations below 3 feet. Such excavations are to be shored as well as dewatered. More shallow excavations may be accomplished to depths of about 3 feet without shoring, but deeper excavations will either require shoring or sloping of the excavation sides even where above the water table.

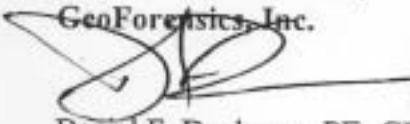
File: 200281  
November 12, 2002

During construction, bridge support construction will be isolated from creek impact by locating the supports on the dry bank areas, or in the overflow areas when not inundated. Construction of foundation elements within the active creek channel is not contemplated nor recommended.

After construction, the bridges should not have a significant impact on the creek or water quality as a result of erosion, provided the design and construction measures necessary to ensure good foundation support are implemented.

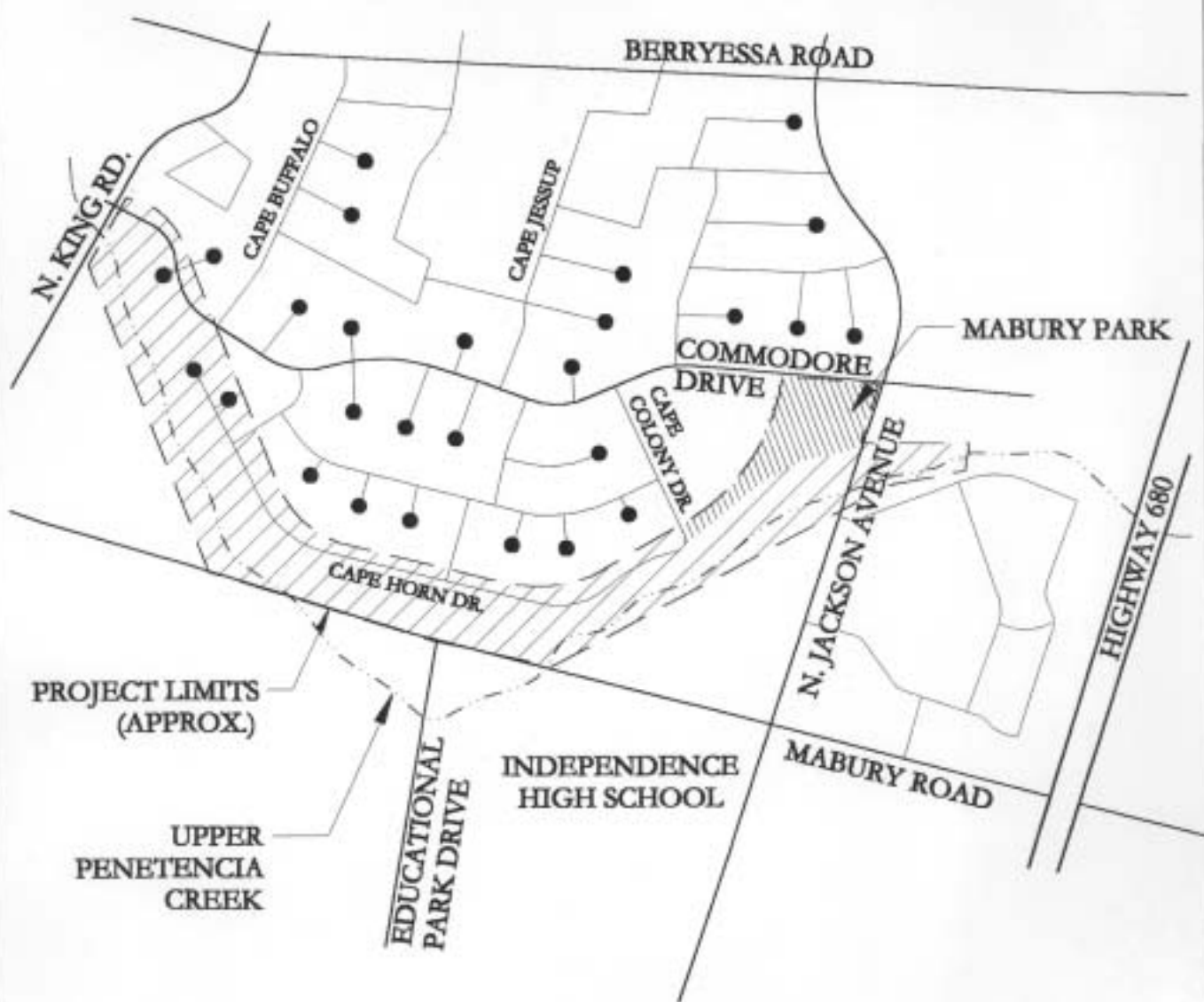
Should you have any questions please contact the undersigned.

Respectfully Submitted;  
GeoForensics, Inc.

  
Daniel F. Dyckman, PE, GE  
Senior Geotechnical Engineer, GE-2145



cc: 1 to addressee



NOT TO SCALE  
11/11/02

FIGURE #1

Mabury Park/Independence High School Chain Reach 6  
City of San Jose



## Attachment 6

### Biological Assessment

(including Tree Survey, Burrowing Owl Surveys and  
Map of Riparian Revegetation Areas)

**MASTER PLAN FOR MABURY PARK  
PENITENCIA CREEK PARK CHAIN REACH 6  
CITY OF SAN JOSE**

**BIOLOGICAL ASSESSMENT**

**INTRODUCTION**

The 33- acre site is located within the City of San Jose, California. The site is bordered by North Jackson Avenue, Cape Horn Drive, North King Road, Commodore Drive, Mabury Road, Pine Hollow Circle, and Independence High School and is bisected by Penitencia Creek, as shown on Figure 1. Penitencia Creek bisects the majority of the site from east to west. The site abuts a high school and developed residential areas.

**Project Description**

The City of San Jose proposes to develop a community park on a 3-acre site adjacent to Jackson Avenue and Commodore Drive and a regional trail system on the remainder of the 33-acre site. A conceptual design has been prepared for the site (Master Plan, Penitencia Creek Park Chain Reach 6, Callander Associates, November 5, 2002). The Master Plan is depicted on Figure 2. As the Master Plan will be implemented prior and concurrently with the Santa Clara Valley Water District's (SCVWD) and U.S. Army Corps of Engineers (USACOE) flood improvement project (note: future flood improvements are not part of the Master Plan and will be done by others), the trail system will be developed in three phases. These are identified as Phase 1, 2, and 3; the schedule of Phases 2 and 3 is dependent on the schedule of the SCVWD's and USACOE flood control improvements. The three trail alignments, by phase, are:

- § Phase 1 Trail Alignment: This phase will be implemented before the SCVWD's westernmost flood control improvements. This phase includes a pedestrian and bicycle trail along the south side of the creek from Mossdale Way to North King Road and includes use of an existing trail on County Park land (Penitencia Creek Park). This phase uses existing trails, sidewalks and a SCVWD maintenance road for the trail. No bridges are constructed in this phase.
- § Phase 2 Trail Alignment: This phase will be implemented before the USACOE flood control improvements. In this phase, the trail becomes a multi-use trail. The alignment is moved to the north side of the creek, parallel to Mossdale Way and beneath North Jackson Avenue. Two multi-use trails are located along the north side of the creek from North Jackson Avenue to Cape Colony Drive (one trail is along an existing SCVWD maintenance road and one trail is located along the outside edge of the existing riparian vegetation). The trail continues along the outside edge of the riparian corridor to Cape Diamond Drive, wherein it crosses the creek and travels along the south side of the creek to North King Road. The Phase 1 trail upstream of North King Road will be removed. A multi-use trail is also located along the north side of the creek from approximately Cape Horn Place to North King Road. A multi-use trail connector will be constructed from Mabury Road to Cape Kennedy Drive. Another multi-use trail connector will be constructed from Mabury Road to Cape Diamond Drive. This phase includes the construction of four bridges: Bridge 1 (over Penitencia Creek near Cape Diamond Drive), Bridge 3 (over existing bypass channel), Bridge 4 (over existing bypass channel near existing weir), and Bridge 6 (over Penitencia Creek near Mossdale Way).
- § Phase 3 Trail Alignment: This phase will be implemented after completion of the USACOE flood control improvements. This phase has one multi-use trail retained along the north side of the

flood control bypass channel from the Mossdale Avenue area to Cape Kennedy Drive. The Phase 3 trail then crosses the flood bypass channel and travels along the south side of the creek to North King Road. This phase includes a multi-use trail connection between Mabury Road to Cape Diamond Drive. Phase 2 trails that are located in the flood control improvement areas will be removed; the Phase 2 trail along the north side of Penitencia Creek between North Jackson Avenue and Mabury Road will also be removed. This phase includes the construction of two bridges: Bridge 2 (over Penitencia Creek parallel to Mabury Road) and Bridge 5 (over bypass channel near Mossdale Way).

The trails (all phases) include a striped asphalt path with decomposed granite shoulders on either side. The Phase 2 and 3 trails will be designed to accommodate pedestrians, bicyclists, and equestrians in accordance with applicable laws, ordinances, and policies. It is the intent of the trails to provide access and links to future trail reaches of the park chain and to adjacent neighborhoods and surface streets.

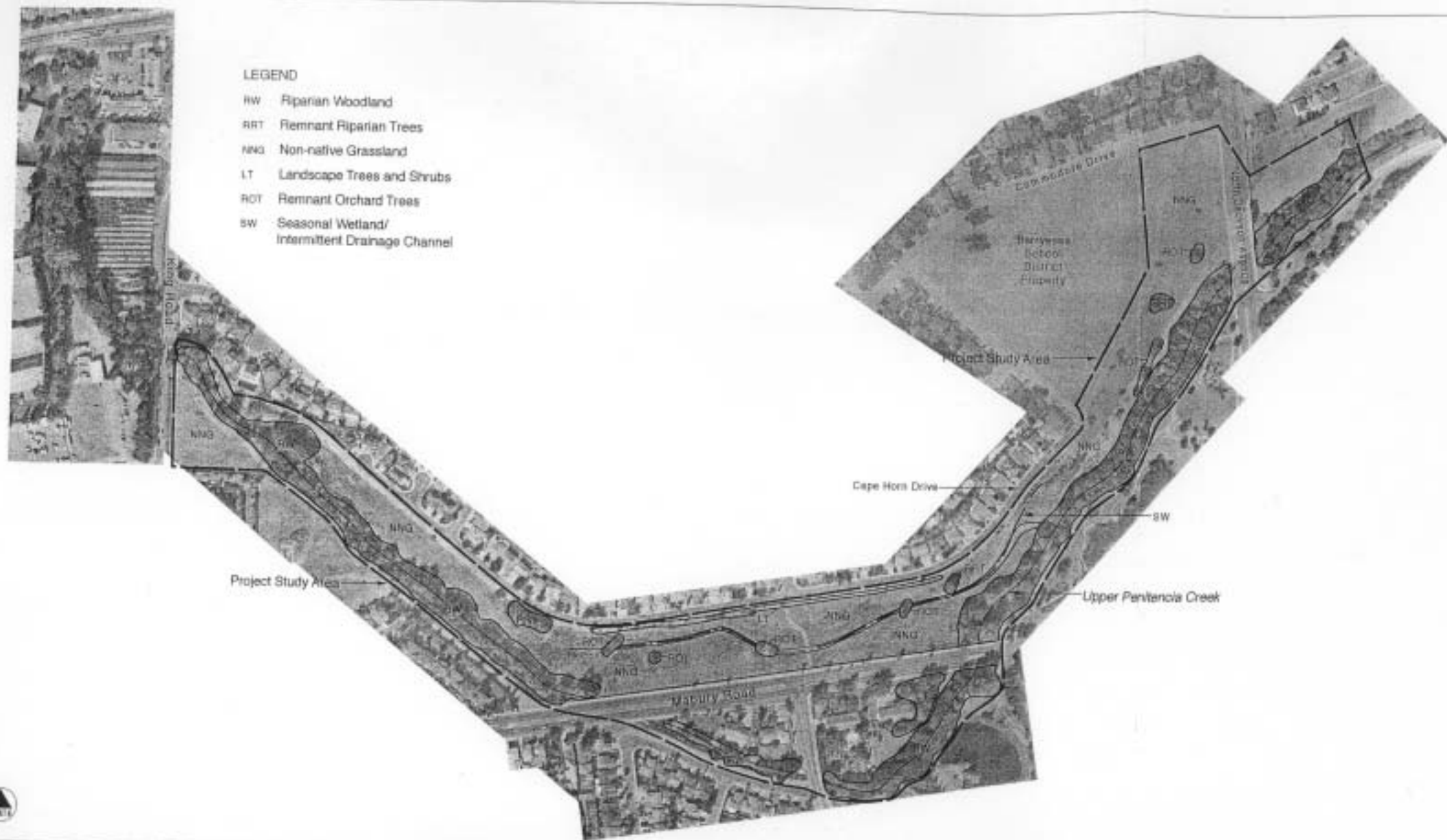
The Master Plan identifies six bridges to provide connections for the trail across Penitencia Creek and across the existing and/or future flood bypass channel. As described above, the bridges will be installed in Phases 2 and 3. These bridges have been placed in locations along the creek already adversely impacted (e.g., Bridge 1 is located at the site of an existing bridge) or where new impacts to the creek environment can be minimized (e.g., areas between tree groves). Two post-flood protection improvement bridges will be located across the new flood control channel and will be located outside the riparian woodland. All bridges over Penitencia Creek are a clear span design. Bridges 3 and 5 will have footings in the bypass channel. The bridges are for non-vehicular traffic. An existing pedestrian bridge over Penitencia Creek, located just upstream of North King Road, will be removed as part of the existing King Road Widening Project (note: the King Road Widening Project is not part of this Master Plan).

The proposed interpretive/educational areas will be located adjacent to the multi-use trail and will be used to educate trail users about the site's flora, fauna, and history. These areas will include educational signs, decomposed granite surfacing and seating.

Mabury Park, a 3-acre park site, will provide the adjacent neighborhoods with an active and passive use park connected to the Penitencia Creek trail system and the nearby Penitencia Creek County Park. Mabury Park is located at the corner of North Jackson Avenue and Commodore Drive and will include off street parking for park users, an open turf area, shade trees, buffer plantings along Commodore and North Jackson, restroom, and two children's play area and equipment.

### **Biological Assessment**

A reconnaissance-level assessment of the biotic resources of the proposed Mabury Park/Penitencia Creek Park Chain Reach 6 project area was conducted between November 2000 and September 2002. An initial field survey was conducted in November 2000 to identify sensitive biotic resources within the project area that may affect park master planning. Subsequent site visits were conducted in October 2001, wherein the project area was re-checked to ascertain if site conditions had changed since the November 2000 survey.



# **Biotic Resources Group**

Post Office Box 14 • Santa Cruz, California 95061  
 (831) 476-4803 • Fax (831) 476-8838

Master Plan for Mabury Park, Penitencia Creek Park Chain Reach 6  
 Existing Vegetation

Figure 1  
 11/02  
 283-01



# KEY

- |  |  |  |
|--|--|--|
| 1 Existing stop sign   | 12 8' asphalt trail from Cleveland Circle Townhomes to King Road   | 21 Bike lanes as part of King Road widening project                            |
| 2 Future signalized intersection, as part of King Road widening                                  | 13 Bridge #2: Bridge over Portenada Creek  | 22 Existing 12' wide trail   |
| 3 Existing wood fence  | 14 Existing gas service manifold boxes   | 23 Existing Portenada Creek Trail to remain, connecting to Adams Park          |
| 4 Future signalized intersection at North Jackson Avenue and Commodore Drive                     | 15 Existing signalized intersection  | 24 Bridge #5: bridge over by-pass channel                                      |
| 5 Existing pedestrian bridge to be removed with King Road widening                               | 16 Bridge #3: Bridge to replace existing path and accommodate future by-pass channel   | 25 Existing Jackson Street bridge  |
| 6 Future King Road widening  | 17 Trail spur to be located on existing maintenance road   | 26 Existing restroom   |
| 7 Future by-pass channel by SCVWD  | 18 Existing county park water service  | 27 Neighborhood park   |
| 8 Future flood protection by-pass channel, by Army Corp of Engineers                             | 19 Existing 3' wide asphalt trail (Phase #1) to be widened to 10' (Phase #3)   | 28 Bridge #6: bridge over Portenada Creek                                      |
| 9 Future link to Portenada Creek Park Reach 7, to be included in road widening / bridge projects | 20 Bridge #4: Bridge adjacent to existing spillway, bridge to be removed and spillway demolished during construction of future by-pass channel | 29 Proposed lot lot  |
| 10 5 ft. wide sidewalk as part of King Road widening project                                     |  | 30 Future signalized pedestrian crossing as part of King Road widening project |
| 11 Bridge #1: Existing bridge to be replaced   |  | 31 Existing 8' wide sidewalk   |



## LEGEND

- |                             |  |
|-----------------------------|--|
| Property line               | Center line of trail                       |
| Proposed sidewalk line, 10' | Class 3 Bike Route, implemented in Phase 2 |
| Proposed vegetation         |  |
| Existing tree               |  |
| Seasonal wetland            |  |
| Access point to trail       |  |
| Interpretive signage        |  |
| Directional signage         |  |
- MULTI-USE TRAIL ALIGNMENT**
- PHASE #1 Alignment: To be implemented before SCVWD (underground) flood control improvements.
  - PHASE #2 Alignment: To be implemented before U.S. Army Corps of Engineers (SCVWD) improvements to Jackson Ave./ flood control improvements.
  - PHASE #3 Alignment: To be implemented subsequent to U.S. Army Corps of Engineers improvements.

Additional field surveys were conducted in January and February 2002 to document areas where vegetation will be removed for the proposed bridges and trail improvements. A subsequent field visit was conducted in September 2002 to re-evaluate site conditions and review a revised master plan. A breeding season burrowing owl survey was also conducted for the project area; this survey was conducted in May and June 2002. In December 2002 and January 2003, a winter-season burrowing owl survey was also conducted.

Specific tasks conducted for this study include:

- € Characterize the major plant communities within the project area.
- € Identify potential sensitive biotic resources, including plant and wildlife species of concern and native trees, within the project area.
- € Evaluate the potential effects of the proposed development specific to the project on sensitive biotic resources and recommend measures to avoid or reduce such impacts.
- € Review an existing inventory of trees (tree inventory review based on topographic and tree survey map provided by City of San Jose, survey dated 2/7/01).
- € Conduct a supplemental tree survey for areas proposed for bridges or trail construction activities.
- € Conduct both breeding season and winter season burrowing owl surveys, as per current CDFG protocol.
- € Develop a conceptual riparian revegetation plan, depicting revegetation areas, a plant species list and revegetation guidelines.

## ASSESSMENT METHODOLOGY

The biotic resources of the proposed Mabury Park (3-acre neighborhood park) and Penitencia Creek Park Chain Reach 6 (30-acre site for regional trail) were initially assessed through reconnaissance-level field observations in November 2000. The proposed park site was walked by a plant ecologist and viewed by a wildlife biologist. In October 2001, the project area was re-checked at a cursory level to ascertain if site conditions had changed since the November 2000 survey. During the November 2000 field survey, the plant communities on the site, based on the classification system developed in Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986), (and amended to reflect site conditions) were identified during the field reconnaissance visit. The distribution of these communities was re-confirmed during the October 2001 field check. Subsequent surveys were conducted in January, February and September 2002 to document potential vegetation removal for the proposed bridges and trail improvements. Burrowing owl surveys were conducted in May and June 2002 (breeding season) and in December 2002 and January 2003 (winter season); the results of these surveys are summarized in this report; the detailed burrowing owl survey reports are presented as Appendix A.

To assess the potential occurrence of special status biotic resources, two electronic databases were accessed to determine recorded occurrences of sensitive plant communities and sensitive species. Information was obtained from the California Native Plant Society's (CNPS) Electronic Inventory (2002) and California

Department of Fish & Game's (CDFG) RareFind database (CDFG, 2002) for the Calaveras Reservoir and San Jose East U.S.G.S. quadrangles.

This report summarizes the findings of the biotic assessment, including the breeding season burrowing owl survey. The potential impacts of the proposed development of recreation facilities within Mabury Park and Penitencia Creek Park Chain Reach 6 on sensitive resources are discussed below. Measures to reduce significant impacts to a level of less-than-significant are recommended, as applicable.

## EXISTING BIOTIC RESOURCES

Four plant associations were observed on the Mabury Park/Penitencia Creek Park Chain Reach 6 project area: cottonwood-sycamore riparian forest, remnant riparian tree stands, seasonal wetlands and non-native grassland. The site also supports planted, non-native ornamental trees and shrubs along Cape Horn Drive and adjacent to existing residential units near Mabury Road. The non-native grassland comprises the majority of the project area, as depicted on Figure 1. Non-native grassland comprises the entire area proposed for development of the Mabury Park facilities, as depicted on Figure 1. The distribution of the plant communities within the project area, including the edge of the riparian woodland along Penitencia Creek, is depicted on Figure 1.

### Non-Native Grassland

The grassland encompasses the flat portions of the site abutting Penitencia Creek. The majority of the grassland area had been disked prior to the November 2000 survey, such that the herbaceous cover was comprised of young, re-emerging herbaceous plants. Evidence of recent diskings was also noted during the October 2001 field re-check, however plant growth had become re-established by the January, February, and September 2002 site visits. Non-native grasses and forbs dominate the area. The dominant plant species are non-native and include Italian ryegrass (*Lolium multiflorum*), Bermuda grass (*Cynodon dactylon*), field bindweed, cheeseweed (*Malva* sp.), yellow star thistle (*Centaurea solstitialis*), prickly sow thistle (*Picris echinoides*) and field mustard (*Brassica rapa*). Portions of the site support castor bean (*Ricinus communis*), a non-native invasive plant. There are also a few remnant orchard and riparian trees within the grassland. As depicted on Figure 1, these trees occur near Cape Horn Drive and include individuals and small groves of black walnut (*Juglans* sp.) trees. One small grove of tree-of-heaven (*Ailanthus altissima*), an invasive, non-native tree, was also observed within the grassland.

The non-native grassland on the project site in general is of low to moderate value to wildlife because of the previous diskings and lack of substantial vegetative cover. The grassland had been disked prior to the November 2000 survey and showed evidence of recent diskings during the October 2001 field visit, yet had not been disked by the May and June 2002 burrowing owl surveys. Common wildlife species expected to occur in this habitat are ground squirrels, Botta's pocket gopher (*Thomomys bottae*), and American robin (*Turdus migratorius*). Special status wildlife species that may inhabit or use the grassland include burrowing owl (*Athene cunicularia*). A few burrows were observed in the grassland adjacent to Cape Horn Drive during the January and February 2002 field visits. Numerous burrows were observed in the proposed Mabury neighborhood park area, although no signs of burrowing owl (e.g., feathers, whitewash, prey remains or pellets) were observed. Breeding bird surveys for burrowing owl were conducted in May and June 2002 (as per current CDFG protocol). There were no burrowing owls present on the site during the 2002 focused surveys for this species (see Appendix A for complete report). Similarly, there were no winter occurrences of this species (see Appendix A).

## Cottonwood-Sycamore Riparian Woodland

The riparian woodland grows along Penitencia Creek and forms the border of the project study area. Mature trees of Fremont cottonwood (*Populus fremontii*), walnut (*Juglans hindsii*), willow (*Salix* sp.), western sycamore (*Platanus racemosa*) and coast live oak (*Quercus agrifolia*) dominate the forest. Blue elderberry (*Sambucus mexicana*) is also present, often as an understory tree. Young trees of black walnut, blue elderberry and coast live oak were also observed in the understory. The limit of the riparian corridor, as defined in the City's Riparian Corridor Policy, is the outside edge of the riparian habitat (or top of bank, whichever is greater). This edge is depicted on Figure 1. There are a few remnant riparian trees within the adjacent grassland. As depicted on Figure 1, these trees occur near Cape Horn Drive and include individual trees or small groves of Fremont cottonwood and sycamore. The riparian woodland supports approximately 462 trees; approximately 183 trees are considered ordinance-sized, as per the City's definition (i.e., greater than 18" in diameter, measured at 24 " above grade). A listing of trees on this site is presented in Appendix B.

The riparian habitat is one of the highest value habitats for wildlife species diversity and abundance in California. Factors that contribute to the high wildlife value include the presence of surface water, the variety of niches provided by the high structural complexity of the habitat, and the abundance of plant growth. Riparian habitat adjacent to the project site may be used by a diversity of wildlife species for food, water, escape cover, nesting, migration and dispersal corridors, and thermal cover. The value of riparian areas to wildlife is underscored by the limited amount of remaining habitat that has not been disturbed or substantially altered by flood control projects, agriculture, or urbanization.

Common wildlife species that are expected to inhabit the riparian habitat include California slender salamander (*Batrachoseps attenuatus*), Pacific treefrog (*Hyla regilla*), bullfrog (*Rana catesbeiana*), western aquatic garter snake (*Thamnophis couchii*), Wilson's warbler (*Wilsonia pusilla*), Bewick's wren (*Thryomanes bewickii*), green heron (*Butorides striatus*), several swallows, red-shouldered hawk (*Buteo lineatus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and California myotis (*Myotis californicus*). Raptors may nest in the mature trees, although no active nest sites were observed during the reconnaissance surveys.

Special status wildlife species that inhabit the riparian habitat along this portion of Penitencia Creek include steelhead (*Oncorhynchus mykiss*) (use as movement corridor to upstream spawning areas), California red-legged frog (*Rana aurora draytonii*), southwestern pond turtle (*Clemmys marmorata pallida*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*).

## Seasonal Wetlands

The project site supports an intermittent drainage channel (flood bypass channel) that traverses through the non-native grassland near Cape Horn Drive. The channel is an overflow channel for Penitencia Creek and is maintained/managed by the Santa Clara Valley Water District (SCVWD). During the November 2000 and October 2001 field visits, the channel was dry, however, plant species typical of seasonally wet conditions were observed. Plants of umbrella sedge (*Cyperus eragrostis*), mule fat (*Baccharis douglasii*) and cocklebur (*Xanthium* sp.) were observed growing in a narrow band along the side of the drainage channel. This narrow wetland fringe may meet the criteria of wetlands as per the definition established by the USACOE under the Clean Water Act. A detailed delineation of wetlands, conducted as U.S. Army Corps of Engineers criteria,



was not conducted as part of the biotic assessment. Such a delineation would be necessary to determine the extent of jurisdictional wetlands in the project area and to secure USACOE permits.

Wildlife utilization of the bypass channel is expected to be similar to the surrounding grasslands during much of the year. When the bypass channel has water (one to two months per year, during winter months), wildlife that inhabits the adjacent Penitencia Creek channel may enter the bypass channel. Special status wildlife species that may enter the overflow channel under high storm flow conditions include steelhead, California red-legged frog, and southwestern pond turtle. These species would not be present in the bypass channel during the dry season.

## **SENSITIVE BIOTIC RESOURCES**

### **Sensitive Habitats**

Sensitive habitats are defined by local, State, or Federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity.

The riparian forest along Penitencia Creek is considered sensitive due to its importance to wildlife species and is recognized as such by both state resource agencies and the City of San Jose. The City of San Jose's Riparian Corridor Policy identifies minimum setbacks between development and riparian corridors. The policy recommends a minimum setback of 10 feet for multi-use trails, although trails can enter the corridor if necessary to maintain continuity. The Riparian Corridor Policy specifies a minimum setback of 100 feet for active recreation facilities (e.g., sport fields, buildings, other structures, impervious surfaces, active play areas, tot lots). If night lighting is proposed, a setback of at least 200 feet and screening is specified so that the light source is not visible from the riparian corridor (City of San Jose Riparian Policy Study, March 1999).

As currently depicted in the Master Plan (dated October 21, 2002), the project is consistent with the guidelines in the City of San Jose Riparian Policy Study. The project is deemed consistent in that the proposed trails are located a minimum of 10 feet outward from the riparian woodland (dripline) except where the trail must enter the corridor to provide trail continuity (e.g., where the trail must cross the creek to connect to another trail segment). The Master Plan also identifies riparian revegetation to provide compensatory mitigation for unavoidable impacts to the riparian vegetation. A revegetation ratio of 3:1 is incorporated into the Master Plan. The trail component of the Master Plan includes lighting beneath the North Jackson Avenue overpass, along the flood control bypass channel (Phase 3). Consistent with the Riparian Policy Study, this lighting is directed away from the riparian corridor so the light is not visible from the nearby riparian corridor.

The Mabury Park project (i.e., neighborhood park) has been designed to have all active recreational facilities located 100 feet from the riparian corridor. This is consistent with the guidelines in the City of San Jose Riparian Policy Study. All lighting within the park will be located a minimum of 200 feet from the riparian corridor and is directed away from the riparian corridor; this is consistent with the Riparian Policy Study.

### **Ordinance Trees**

Ordinance-sized trees are considered sensitive resources. The City of San Jose's Tree Removal Controls (San Jose City Code, sections 13.31.010 to 13.32.100) serve to protect all trees having a trunk measuring 56 inches or more in circumference (i.e., 18 inches in diameter) at the height of 24 inches above the natural grade of

slope. A tree meeting this measurement is considered an “ordinance tree”. The City’s tree ordinance applies to both native and non-native species. A tree removal permit is required from the City of San Jose for removal of ordinance-sized trees. The City of San Jose requires, prior to issuance of any approval or permit for construction of any improvement of the project site, that all trees on the project site be inventoried and categorized according to size, species and location.

For the Mabury Park / Penitencia Creek Park Chain Reach 6 project area, trees within the project area were measured and their location depicted on a topographic map. This work was conducted by staff from the City of San Jose in February 2001 and supplemented by an additional tree survey in February 2002 (by Biotic Resources Group). The supplemental tree survey documented trees near the proposed construction activities (i.e., around the bridges, trail and other improvements); the species, diameter (inches, measured at 24” above grade) and location of the trees were noted. A total of 58 trees/tree groupings were documented in these areas; 20 of these trees are ordinance-sized. Detailed information on these trees, including photographs, is presented in Appendix B.

A general tree survey was conducted in areas where vegetation removal is not to occur (i.e., trees within the riparian corridor). In these areas, trees were classified into two groups, less than 18” diameter or greater (or equal) to 18” diameter (ordinance-sized). According to the City’s tree survey and the consultants supplemental tree survey, the project site supports an additional 479 trees, 172 of these are ordinance-sized. Appendix B presents a table listing the trees, including ordinance-sized trees, within the project area.

### **Heritage Trees**

Any tree found by the City Council to have special significance can be designated as a heritage tree, regardless of tree species or size. City-designated heritage trees are considered sensitive resources. It is unlawful to vandalize, mutilate, remove or destroy heritage trees. There are no City-designated heritage trees in the project study area, as per the City’s heritage tree list (City of San Jose, 2001).

### **Special Status Plant Species**

Plant species of concern include those listed by either the Federal or State resource agencies as well as those identified as rare by CNPS (Skinner & Pavlik, 1994). Based on a search of the CNPS and CNDDB inventories and visual observations of the project site, the potential for plant species of concern is considered low. This evaluation is based on the lack of suitable habitat for sensitive plant species (e.g., serpentine grassland, coastal prairie, chaparral, and vernal pools). No special status plant species were observed on the project area during the November 2000, January, February, or September 2002 reconnaissance survey, however these surveys were conducted during the non-blooming season for most plant species.

## Special Status Wildlife Species

Special status wildlife species include those listed by either the Federal or State resource agencies as well as those identified as Federal and/or State species of special concern. In addition, all raptor nests are protected by Fish and Game Code, and all migratory birds are protected by the Federal Migratory Bird Act. Special status wildlife species were evaluated for their potential presence in the project area, and those expected to occur are described below.

Steelhead (*Oncorhynchus mykiss*) (known from Penitencia Creek). Steelhead is Federally listed as threatened (Central California Coast Evolutionary Significant Unit). Steelhead are anadromous fish that migrate from the ocean up freshwater creeks and rivers to spawn. The young steelhead typically remain in freshwater for two years before migrating to the ocean or bay. They typically spend 1-2 years in marine waters before returning to their natal stream to spawn (National Marine Fisheries Service 1997). Steelhead often spawn more than once before they die, and spawning usually occurs between January and April. Eggs are laid in gravels of streams, and take 4-6 weeks to hatch (J. Smith, pers. comm., 2001). The hatchlings are called alevins and remain in the gravels for 2-4 weeks until their yolk sac is absorbed, at which time they emerge from the gravels as “fry” and begin actively feeding. After 1-2 years, the steelhead migrate to the ocean as “smolts.”

Steelhead are known to spawn and rear in Penitencia Creek within Alum Rock Park (Alum Rock Riparian Management Plan, Biotic Resources Group, 2001). These steelhead coexist with a resident population of rainbow trout. Steelhead relative abundance increases in wet years when adult and smolt migration conditions improve. Steelhead use the portion of Penitencia Creek at the Penitencia Creek Park Chain Reach 6 project area as a passageway to upstream spawning areas. This migration period occurs from mid-June to mid-October.

California red-legged frog (*Rana aurora draytonii*) (known from Penitencia Creek). This species of frog is a State species of special concern and Federally listed as threatened. This species is found in quiet pools along streams, in marshes, and ponds. This species' breeding season spans January to April (Stebbins 1985). Females deposit 1000 to 4000 eggs on submerged vegetation at or near the surface. Red-legged frogs are closely tied to aquatic environments, and favor streams which include some areas with water at least 0.7 meters deep, a largely intact emergent or shoreline vegetation, and a lack of introduced bullfrogs and non-native fishes. They are generally found on streams having a small drainage area and low gradient (Hayes and Jennings 1988). The red-legged frog occurs west of the Sierra Nevada-Cascade crest and in the Coast Ranges along the entire length of the state. Much of its habitat has undergone significant alterations in recent years, leading to extirpation of many populations. Other factors contributing to its decline include its former exploitation as food, water pollution, and predation and competition by the introduced bullfrog and green sunfish (Moyle 1973, Hayes and Jennings 1988).

California red-legged frog may occur along the riparian corridor adjacent to the project site during seasonal movements to and from breeding areas and occasionally during the summer for foraging and cover. It is unlikely that red-legged frogs breed along this portion of Penitencia Creek because it lacks pooled areas with still or slow moving water. This frog has been observed in Penitencia Creek near Alum Rock Park (CDFG 2002).

Foothill yellow-legged frog (*Rana boylei*) (known from Penitencia Creek). This species of frog is both a State and Federal species of special concern. It is found in or adjacent to rocky streams in a variety of habitats, including valley foothill hardwood, valley-foothill riparian, coastal scrub, mixed conifer, mixed chaparral, and wet meadows. This species is very closely tied to its aquatic habitat, and is rarely found

far from perennial or intermittent streams. Foothill yellow-legged frogs are typically found in shallow water of partly shaded streams. They prefer sites with riffles and at least cobble-sized substrates. Adults seek moving but usually not swiftly flowing water. Pools are used on intermittent streams during the dry season. Breeding takes place from mid-March to early June. The female attaches grape-like clusters of eggs to gravel or rocks in moving water near stream margins.

There are records of yellow-legged frogs in Penitencia Creek near the Alum Rock Park headquarters (H. T. Harvey and Associates 1999a). The species is not expected to occur in the Penitencia Creek Park Chain Reach 6 project area due to the lack of suitable habitat.

Southwestern pond turtle (*Clemmys marmorata pallida*) (potential to occur along Penitencia Creek). The pond turtle is a Federal and State Species of Special Concern. This aquatic turtle inhabits ponds, lakes, streams, marshes, and other permanent waters located in woodland, grassland, and open forests below 6,000 ft (Stebbins, 1985). Pond turtles can often be seen basking in the sun on partially submerged logs, rocks, mats of floating vegetation or mud banks. They remain in ponds in winter and during very cold weather, they may hibernate in bottom mud. Stream turtles avoid floods by overwintering in upland habitats with dense cover or seasonally flooded wetlands. The diet of these turtles consists of aquatic vegetation, insects, fish, worms, and carrion. Females dig soil nests in or near stream banks (Nussbaum et al., 1983) in sparsely vegetated, unshaded habitats. They may move up to a mile in order to nest (Smith, J., unpublished). Eggs are deposited between April and August. One factor in the decline of this species is the introduction of non-native fish, which prey on hatchlings and juveniles.

Pond turtles may occur along portions of Penitencia Creek, especially where there are slow water areas, deep ponds and low banks or logs for basking. The turtles also need adjacent upland areas for nesting. It is unlikely that pond turtles breed within the Penitencia Creek Park Chain Reach 6 project area because of the historic disking of the adjacent grasslands. The site is not expected to provide breeding habitat due to the disturbed condition of the stream bank (i.e., compacted conditions and the historic disking of the adjacent grasslands). There are no documented records of pond turtles in this portion of Penitencia Creek.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) (potential to occur in riparian woodland). The dusky-foot woodrat is also a State species of special concern. These small mammals build large stick nests at the bases of trees and shrubs. They prefer forested habitat with a moderate canopy and brushy understory, and are often found on the upper banks of riparian forests. This woodrat feeds on a variety of woody plants, fungi, flowers and seeds.

This woodrat may occur in the upper banks of the willow-sycamore riparian habitat along the Penitencia Creek corridor, however this is unlikely as no nests were observed within the project area during field reconnaissance surveys.

Yellow warblers (*Dendroica petechia brewsteri*). This warbler, a State Species of Special Concern, are common during spring and fall migration in central California, and are locally common during the summer breeding season (Roberson and Tenney, 1993). Breeding pairs are closely associated with open canopy riparian habitat along streams and lakes, and are most numerous where substantial areas of riparian habitat remain along major creeks and rivers. A variety of riparian trees is used during foraging, but habitats with willows and cottonwoods or willows and sycamores, with dense undergrowth, seem to be favored. The yellow warbler's diet consists of spiders and insects, which it gleans from understory vegetation and the canopies of deciduous trees. Nests are constructed low in trees, typically from 2-12 feet above the ground

(Harrison, 1978), and nesting takes place from April to mid-June. Yellow warblers are much reduced in numbers over much of their California breeding range, largely due to loss of riparian habitat and nest parasitism by the brown-headed cowbird (Remsen, 1978).

Due to the lack of dense undergrowth with a contiguous canopy of cottonwood/willow along the riparian area, the yellow warbler is not expected to nest in the project area because the site does not have suitable habitat conditions for this species' nesting requirements.

Burrowing owls. Burrowing owls (*Athene cunicularia*) are a California Species of Special Concern. They are a migratory species and use annual or perennial grasslands as a resting site during migration, as feeding habitat, and as breeding grounds. The nesting season for burrowing owls occurs between February 1 and August 31 and peaks around April 15-July 15 (California Burrowing Owl Consortium 1993). Burrowing owls nest in single pairs, or more often in small colonies, and make their nests in burrows created by fossorial mammals. They forage nocturnally and crepuscularly for insects and small rodents. During the daylight hours burrowing owls will perch conspicuously either at the entrance to their burrow or on a nearby post or shrub. Owls are found in close association with California ground squirrels, as owls use abandoned burrows of ground squirrels for shelter and nesting.

The Mabury Park portion of the project study area was found to contain potential burrowing owl habitat during the reconnaissance field surveys. The proposed park site was found to support ruderal and grassland areas (for foraging) and ground squirrel burrows. No other portions of the project study area contained potential burrowing owl habitat, as no other areas supported ground squirrel burrows. During May and June 2002, four dawn and dusk surveys were conducted, as per current CDFG protocol. No burrowing owls were observed during the four surveys. In addition, no signs of burrowing owls were observed and several burrows appeared to be occupied by ground squirrels. Based on these surveys, the project area does not currently support breeding burrowing owls. The site was considered suitable for non-breeding use, wherein winter resident owls utilize the site. A winter breeding bird survey (conducted between December 1, 2002 and January 31, 2003) was conducted and no use of the site by owls was detected.

## IMPACT AND MITIGATION DISCUSSION

### IMPACT CRITERIA

The thresholds of significance presented the California Environmental Quality Act (CEQA) were used to evaluate project impacts and to determine if the proposed development poses significant impacts to biological resources. For this analysis, significant impacts are those that substantially affect either:

- § A species (or its habitat) listed or proposed for listing by State or Federal governments as rare or endangered (i.e., steelhead trout);
- § Breeding/nesting habitat for a State species of special concern (i.e., burrowing owl, pallid bat);
- § A plant considered rare (i.e., List 1B) by CNPS (none identified to utilize the project area);
- § A habitat regulated by State or Federal law (i.e., riparian woodland, wetlands),
- § Nesting birds regulated under the Federal Migratory Bird Treaty Act (i.e., nesting raptors), or
- § A habitat or resource recognized as sensitive by the City of San Jose (i.e., riparian habitat and ordinance-size trees).

### POTENTIAL IMPACTS AND MITIGATION MEASURES

The proposed Master Plan was evaluated for potential direct and indirect impacts to sensitive biotic resources.

Examples of potential direct impacts are the removal of riparian woodland and jurisdictional wetlands. Examples of indirect impacts include temporary habitat disturbance to habitats and special status species during construction. Post-construction impacts from an increase in human use in and adjacent to the riparian woodland were also evaluated. Measures are recommended to reduce direct and indirect impacts (including post-construction activities) from the proposed project on biological resources. These measures include actions to avoid and minimize impacts to special status species during construction, control of sediment from construction activities adjacent to the Penitencia Creek and flood bypass channel, erosion control seeding of disturbed areas, protective fencing or vegetation barrier plantings, interpretive signs and establishment of riparian revegetation areas.

As described below, with successful implementation of the stated mitigation measures, the proposed project will not have a substantial adverse effect (either directly or through habitat modifications) on any species identified as a candidate, sensitive or special status species (as identified by the City, CDFG or USFWS). Although special status animal species are known, or have potential, to occur in the project area (i.e., steelhead, California red-legged frog, dusky-footed woodrat, southwestern pond turtle, pallid bat and nesting raptors), incorporation of the stated mitigation measures will avoid adverse impacts to these species and their habitat. Construction-specific measures have been identified to avoid temporary construction-related impacts to these species and their habitat. These measures include installation of protective fencing around riparian vegetation that is to remain and installation of silt fencing to preclude sediments from entering waterways. Post-construction measures have also been identified to avoid and/or compensate for impacts. These include protective fencing (or barrier plantings) along portions of the trail that abut the riparian woodland, revegetation of riparian woodland (3:1 replacement ratio, acreage) and interpretive signs prohibiting fishing or dumping of non-native fish in Penitencia Creek.

The proposed trail alignments and bridges (all phases) will not directly affect the channel bed of Penitencia Creek as trail construction will occur along the top-of bank and all bridge footing will be

located out the creek channel. The project will not directly affect Waters of the U.S. or potential steelhead spawning or rearing habitat. Trail and bridge construction will, however, necessitate the removal of approximately 4,900 square feet (0.11 acre) of riparian vegetation. This will occur in Phase 2, where vegetation must be trimmed to provide clearances for placement of the two bridges over Penitencia Creek (bridges #1 and #6) and their trail approaches and, in Phase 3, for the placement of bridge #2 and related trail approach. The bridgework in Phases 2 and 3 (bridges #2 and #6) will result in the removal of vegetation that provides shaded cover over the creek channel (i.e., shaded riverine aquatic habitat). Since an existing old bridge occurs at the site of bridge #1, the placement of a new bridge will not affect shaded riverine aquatic habitat. Impacts to shaded riverine aquatic cover from bridges #2 and #6 are included in the total amount of riparian vegetation removed, as discussed above. The proposed revegetation plan, as well as the bridges themselves, will provide compensatory cover over the channel. The Revegetation Plan depicts plantings along the lower slope of the channel near bridges #1, #2, and #6 to provide compensatory shaded riverine habitat. The total number of riparian trees removed by the project is seven trees (five walnuts, one buckeye and one elderberry). Five of these trees are ordinance-sized, as listed in the Tree Survey (see Appendix B).

At the Mabury Park site (3-acre neighborhood park), no direct impacts to the riparian woodland will occur. The active recreational features are proposed to be located a minimum of 100-feet from the riparian corridor, as depicted on Figure 2. As the park facilities are located over 100-feet away from the riparian corridor, no significant indirect impacts to riparian resources are expected from park construction or park uses. The neighborhood park facilities will have low-level security lighting at the parking lot and interior pathways. These low-level lighting features are directed away from the riparian corridor and located over 100-feet from the riparian corridor. Due to the direction and low-intensity level of the lighting, impacts to riparian resources from the neighborhood park are not anticipated.

The Phase 3 trail alignment identifies low-level security lighting of the multi-use trail beneath the Jackson Avenue overpass along the flood control bypass channel. This low-level security lighting will be directed away from the riparian woodland along Penitencia Creek and will be directed on the trail within the flood control channel (not the adjacent riparian corridor). Due to the direction and low-intensity of the lighting and its location outside the riparian corridor, impacts to the riparian resources along Penitencia Creek are not anticipated. The trail component of the project also identifies lighting of the trail at the bridge at Education Park Drive at Mabury Road (Phase 2). This lighting will be low-level security lighting and will be directed downward to illuminate the trail along Mabury Road. Due to the direction of the lighting, its low intensity, and its location outside the riparian corridor, impacts to the adjacent riparian resources along Penitencia Creek are not anticipated.

Impacts from the proposed project, and accompanying measures to avoid, minimize or compensate for these impacts are discussed in detail below. Tables 1, 2 and 4 summarize this information.

**Table 1. U.S. Army Corps of Engineers jurisdiction: impact acreage and proposed mitigation**

Habitat Type/Resource	Impact Type	Impact Acreage	Mitigation Acreage Proposed	Mitigation Ratio (Mitigation: Impacts)
<b>Waters of the U.S.</b>				
Other Waters of the U.S. (unvegetated streambed of Penitencia Creek)	Direct impact, fill of channel bed (permanent) or temporary construction access	None	None	N/A
Wetlands (in-stream vegetation)	Direct impact, fill of wetlands (permanent) or temporary construction access	None	None	N/A
<b>Total</b>		<b>None</b>	<b>None</b>	<b>N/A</b>

**Table 2. California Department of Fish and Game jurisdiction: impact acreage and proposed mitigation**

Habitat Type/Resource	Impact Type	Impact Acreage	Mitigation Acreage Proposed	Mitigation Ratio (Mitigation: Impacts)
<b>Riparian Woodland</b>	Direct impact to native woody vegetation from bridge and trail construction	7 trees 4,100 sq. ft. (0.09 acre)	235 trees/shrubs 12,300 sq. ft. (0.28 acre)	3:1 (acreage) 14:1 (tree replacement ratio)
	Direct impact to shaded riverine aquatic habitat from bridge construction	800 sq. ft. (0.02 acre)	2,400 sq. feet (0.06 acre)	3:1 (acreage)
<b>Potential Steelhead Spawning and Rearing Habitat</b>	Direct impact to channel bed	None	None	N/A
<b>Total</b>		4,900 sq. ft (0.11 acre)	14,700 sq. ft. (0.33 acre)	3:1 (acreage)

### **Impact 1. Direct Impacts to Penitencia Creek and its Associated Riparian Woodland and Seasonal Wetlands within the Existing Flood Bypass**

Within the Penitencia Creek Park Chain Reach 6 project area, the Master Plan specifies the construction of portions of the trail alignment, as well as bridges #1, #2, #4, #5 and #6, within the 100-foot riparian setback area; the location of the trail alignment and bridges relative to the 100-foot riparian line is depicted on Figure 2. In Phase 1, a trail will be along the south side of the riparian woodland between North King Road and Cape Diamond Drive. A Phase 2 trail is proposed along the north side of the riparian woodland between North Jackson Avenue and Mabury Road. Another Phase 2 trail is proposed between Mabury Road and Cape Diamond Drive. In Phase 3, the multi-use trail will be south of the riparian woodland between Mabury Road and Cape Diamond Drive. With the exception of bridges #1, #5, and minor limbing of vegetation for trail



height clearances, no other riparian woodland will be directly affected. The majority of the Phase 3 trail alignment is located outside the 100-foot riparian setback area, as depicted on Figure 2.

Construction of the Phase 1, 2 and 3 trails and bridges will affect approximately 4,900 square feet (0.11 acre) of riparian vegetation (see Table 2). This assumes a construction area of approximately 20 feet for the trail (where the trail is not using an existing maintenance road). Seven riparian trees will be removed and some trees will be partially trimmed to provide necessary trail clearances (five of these trees are ordinance-sized). The location of these trees, as well as the extent of riparian vegetation, to be removed are depicted in Appendix B, Figures B-1 through B-5.

The Master Plan specifies the construction of three bridges over Penitencia Creek and three bridges across the existing or future flood bypass channel (note: future flood improvements are not part of the Master Plan and will be done by others). The impacts to riparian vegetation from these bridges are:

- § Bridge #1: Approximately 100 square feet of riparian woodland will be removed from along Penitencia Creek for the new bridge; removal will be limited to limbing existing trees for construction clearance, as the site currently supports an old foot bridge (old railroad flat car); bridge to be implemented in Phase 2 (see Figure B-1).
- § Bridge #2: Approximately 2,400 square feet of riparian woodland will be removed from along Penitencia Creek for the new bridge; removal will involve five trees and trimming adjacent trees for construction clearance; bridge to be implemented in Phase 3 (see Figure B-2).
- § Bridge #3: This bridge will be located across the new flood control bypass in Phase 2; no riparian vegetation will be affected.
- § Bridge #4: The bridge will be located across the existing flood control bypass in Phase 2; no riparian vegetation will be affected (see Figure B-3).
- § Bridge #5: This bridge will be located across the new flood control bypass in Phase 3; no riparian vegetation will be affected (see Figure B-4).
- § Bridge #6: Approximately 2,400 square feet of riparian woodland will be removed from along Penitencia Creek for the new bridge; removal will involve two trees and trimming adjacent trees for construction clearance; bridge to be implemented in Phase 2 (see Figure B-4).

The design of the bridges is to allow only the intended trail users (pedestrian, bicycles and equestrians; no vehicles). All bridges over Penitencia Creek will have abutments placed outside the creekbed. Removal of riparian vegetation will be limited to the area needed to provide clearance for the bridge structure and trail height clearances. Based on the Master Plan design, construction of the bridges (including construction equipment area) and trails will result in the removal of approximately 4,900 square feet (0.11 acre) of riparian vegetation (i.e., trimming of vegetation and removal of trees) along Penitencia Creek (Table 2).

Successful implementation of Mitigation Measures 1a and 1b, below, will reduce the direct impacts to Penitencia Creek, and its associated riparian vegetation, and wetland resources within the bypass channel to a less-than-significant level.

**Mitigation Measure 1a:** As depicted on the Master Plan, the Phase 1, 2, and 3 trails along the riparian woodland of Penitencia Creek shall be set back from the existing riparian dripline a minimum of 10 feet (except for bridge crossings #1, #2, #4 and #6, use of the existing SCVWD maintenance roads in Phase 1 and 2 and use of the existing trail within Penitencia Creek Park in Phase 1). The 10-foot setback from the dripline shall be portrayed on the construction documents. As depicted on the Master Plan, all active recreation at the Mabury Park site (e.g.,

structures, impervious surfaces, active play areas) shall be setback a minimum setback of 100 feet from the edge of the riparian woodland. This distance shall be portrayed on the construction documents.

**Mitigation Measure 1b:** As compensation for the removal of riparian vegetation (including ordinance-sized riparian trees), the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall implement a riparian revegetation plan that specifies a 3:1 riparian replacement ratio (i.e., 3 acres of habitat created for each acre impacted). Based on the Master Plan design, approximately 14,70 square feet (0.33 acre) of riparian revegetation shall be installed within the project site to meet this 3:1 replacement ratio. This planting area includes a 14:1 replacement ratio for impacted trees. If the impact area were reduced during the final design phase of the project, a smaller revegetation area would be acceptable, so long as a 3:1 acreage replacement ratio (and minimum 4:1 tree replacement ratio) is implemented. The proposed riparian revegetation areas are depicted on Figure 2; approximately 14,700 square feet of plantings (0.33 acre) are specified.

The City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall prepare and implement a revegetation plan for the establishment of the riparian revegetation. The plan shall specify the detailed location of all plantings, the use of locally native riparian plant species, irrigation during years 1-3 and a 5-year maintenance and monitoring program. The plan shall specify the City shall monitor the revegetation areas a minimum of once a year. During each year of the 5-year monitoring period, plantings shall achieve a minimum 80% survival rate for the revegetation to be deemed successful. Monitoring will continue beyond Year 5 if success criteria are not achieved. Plant species to be utilized for the revegetation are listed on Table 3. Guidelines for the riparian revegetation are presented in Appendix C.

The City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall prepare yearly monitoring reports and submit these reports to the City of San Jose Planning Department at the end of each monitoring year. The reports shall identify the plant survival rate, maintenance actions at the site and include photographs documenting the status of the revegetation. The City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall implement remedial measures should the success criteria not be achieved in any of the five monitoring years. Remedial measures may include replacement plantings, an increase in maintenance or changes to the irrigation regime.

Pursuant to the requirements of CDFG, the City shall obtain a 1601 Streambed Alteration Agreement (SAA) with CDFG. As part of the City's application of the SAA, the City shall submit the riparian revegetation plan to CDFG for review and approval.

**Table 3. Planting List for Riparian Revegetation Areas: Revegetation of Approximately 14,700 square feet [0.33 acre]**

Common Name	Scientific Name	Approx. Spacing	Approx Quantity	Size
Valley Oak	<i>Quercus lobata</i>	20' o.c.	20	Tree port
Willow	<i>Salix sp.</i>	3' o.c.	50	Pole cutting
Blue Elderberry	<i>Sambucus mexicana</i>	8' o.c.	30	1 gallon
California Rose	<i>Rosa californica</i>	8' o.c.	35	1 gallon
Toyon	<i>Heteromeles arbutifolia</i>	8' o.c.	35	1 gallon
Coffee Berry	<i>Rhamnus californica</i>	8' o.c.	35	1 gallon
Coyote Brush	<i>Baccharis pilularis</i>	8' o.c.	30	1 gallon
<b>Total Plants</b>			<b>235</b>	

## **Impact 2. Indirect Impacts to Penitencia Creek and its Associated Riparian Woodland**

Construction activities associated with trail construction and bridges #1, #2 and #6 may result in erosion and sedimentation entering Penitencia Creek, and thereby adversely affect aquatic resources, if construction work does not include practices to control these activities. Construction activities associated with trail sections, as well as three bridges (bridge #3, #4 and #5), that traverse the future flood bypass channel may also result in erosion and sedimentation entering the bypass channel. Erosion and sedimentation may adversely affect Waters of the U.S. and/or seasonal wetlands that may occur in the bypass channel if construction work does not include practices to control these activities.

Indirect impacts to Penitencia Creek and its associated riparian habitat may also occur during trail construction and by post-construction human activities on and adjacent to the trails and bridges. Uses, such as off-trail bicycle riding, trampling of vegetation and deposition of materials into the creek habitat (e.g., deposition of sediments or trash into the creek, planting of non-native fishes into the creek), may degrade the habitat value of the area. Successful implementation of Mitigation Measures 2a and 2b, below, will reduce the indirect impacts to Penitencia Creek and its associated riparian vegetation, to a less-than-significant level.

**Mitigation Measure 2a.** Prior to the construction of Phase 1, 2, and 3 trail alignments, the City shall install silt fencing along the outside edge of grading and the riparian woodland (whichever is greater) to prevent construction debris and sediments from entering Penitencia Creek and the flood bypass channel.

**Mitigation Measure 2b.** Concurrent with the construction of the Phase 2 and 3 trail alignments, the City shall install a low split-rail type fence or vegetative barrier plantings between the riparian woodland and the trail (where the trail is located adjacent to the riparian woodland). The fence or vegetative barrier plantings would minimize off-trail uses and protect the riparian area from indirect impacts from park users (i.e., trampling, deposition of debris, etc.). Signs shall be posted at Bridges #1, #2, #4 and #6 stating that dumping of non-native fishes into the creek and fishing is prohibited.

**Mitigation Measure 2c.** Once the Phase 3 trail alignment is completed, the City shall remove the portions of the Phase 2 trail alignment that are no longer in service. Prior to the removal of the Phase 2 trail, the adjacent riparian woodland shall be protected from demolition impacts by the placement of silt fencing along the outside edge of grading and/or the riparian woodland (whichever is

greater) to prevent trail demolition debris and sediments from entering Penitencia Creek. Following removal of the Phase 2 trail surface, the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall revegetate the disturbed areas with a non-invasive erosion control seed mix that is compatible with the adjacent riparian woodland and the future flood control project. The seed mix shall be hydroseeded with mulch or hand-seeded and mulched with weed-free straw. The City shall monitor the effectiveness of the erosion control measures during the first year's rainy season and implement remedial measures (e.g., reseeding, repair of silt fencing) if sedimentation or erosion is noted.

### **Impact 3. Impacts to Steelhead, Pond Turtle, and California Red-Legged Frog**

Implementation of the project improvements will require removal of riparian vegetation during construction of the trail and three bridges. Although the project area is not considered breeding habitat for the California red-legged frog and pond turtle, frogs and turtles may enter the work area during their movements to/from adjacent areas. Other impacts may occur to this species, including displacement of individuals from the work sites and increased predation of individuals displaced to less favorable sites. Although no construction activities will occur within waters of Penitencia Creek, the federally listed steelhead may be indirectly impacted if the project causes increased sediments to the water (which may damage the fish gills and reduce their ability to see and capture prey).

Successful implementation of Mitigation Measures 3a through 3d, below, will reduce impacts to these species to a less-than-significant level. Table 4 summarizes potential impacts to these special status wildlife species.

**Mitigation Measure 3a:** To avoid indirect impacts to steelhead, California red-legged frog, and other aquatic species that occur in Penitencia Creek, the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall specify erosion control measures on the construction documents to preclude erosion or sediments from entering Penitencia Creek during and after construction of the trails and bridges.

The following erosion control measures shall be implemented during all phases of construction on the project site: dust control, erosion control seeding of all disturbed areas following construction, and the placement of silt fencing along the outside edge of grading and/or riparian woodland (whichever is greater) to prevent construction debris and sediments from entering Penitencia Creek. The silt fencing shall be installed prior to any site disturbance. During and following construction, the City shall monitor the effectiveness of the erosion control measures during the first year's rainy season and implement remedial measures (e.g., reseeding, repair of hay bales or silt fencing) if sedimentation or erosion is noted.

**Mitigation Measure 3b.** A qualified wildlife biologist, under contract to the City, shall conduct pre-construction clearance surveys for California red-legged frogs and pond turtle. These surveys shall consist of one night survey (for frogs) and one day survey (for turtles) conducted within 48 hours of the onset of construction activities (or other USFWS-approved protocol for California red-legged frog, if such protocol is adopted by USFWS prior to site construction). If red-legged frogs are heard or seen during the pre-construction surveys, construction will be postponed and USFWS will be contacted for guidance. If pond turtles are observed, all construction will be postponed and CDFG contacted for guidance prior to proceeding.

A qualified biologist shall be contracted by the City of San Jose to be present on the project site during the initial vegetation removal for creek crossings. If any California red-legged frog or pond turtle are observed, the biologist shall have the authority to temporarily stop construction until the USFWS and CDFG can be consulted for further guidance.

**Mitigation Measure 3c.** The City of San Jose shall ensure that no “take” of California red-legged frog occurs during project construction, by implementing the following measures: all project work shall occur during the dry season (e.g., between May 1 and November 1); the City of San Jose, shall ensure that all site personnel are advised that no take of California red-legged frogs is allowed on the project, and all personnel directly involved in the construction shall agree to the precautionary measure listed above (i.e., adherence to dry season construction period) to avoid any impacts to this species.

**Mitigation Measure 3d.** Implement habitat revegetation actions as described in Mitigation Measure 1b, above. Habitat replacement will provide compensatory mitigation to special status species habitat that is removed by the project.

#### **Impact 4. Impacts to Dusky-footed Woodrats**

Removal of understory vegetation within the riparian woodland may remove woodrat nests if they are present during the scheduled construction period. This impact is considered potentially significant, however, successful implementation of Mitigation Measure 4 will reduce impacts to woodrats and their habitat to a level of less-than-significant.

**Mitigation Measure 4:** To avoid direct and indirect impacts to woodrats that may occur in the riparian woodland, a qualified wildlife biologist, under contract to the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall conduct a pre-construction survey to document that there are no woodrat nests in the construction area. If a nest is present, the biologist shall consult with the CDFG regarding the potential to relocate the nest to an undisturbed portion of the riparian corridor. If relocation is not possible, the CDFG shall be consulted regarding removal of the woodrat nest by hand to allow the occupant woodrats to escape unharmed.

**Table 4. Analysis of Impacts to Special Status Species and Proposed Mitigation**

Biological Resource	Impact Type	Impact Potential Type  P = Potential NP = No Potential	Mitigation Proposed
<b>Potential Steelhead Spawning or Rearing Habitat</b>	Direct impact to open water	NP	None
	Indirect impact to open water habitat	P (sedimentation, erosion)	Pre and post construction erosion control and sedimentation measures (Mitigation Measure 3)
<b>California Red-legged Frog</b>	Potential take of individuals during construction; Indirect impact to open water habitat	P	Pre-construction survey; biological monitor present during initial vegetation removal; Construction during the dry season Pre and post construction erosion control and sedimentation measures (Mitigation Measure 3)
<b>Dusky-footed Woodrat</b>	Potential impact to nesting individuals during construction	P	Pre-construction surveys and relocation of nests (Mitigation Measure 4)
<b>Nesting Birds, Including Raptors, and Roosting Bats</b>	Potential disturbance to breeding birds, including raptors during construction	P	Pre-construction survey and construction BMP's (Mitigation Measure 5)

#### **Impact 5. Impacts to Nesting Birds, Including Raptors, and Roosting Bats**

Removal of the riparian vegetation may result in impacts to the nesting birds, including raptors or roosting bats (and their habitat), if they are present during the scheduled construction period. Construction noise may also indirectly impact nesting birds if they are present within a buffer area of the project site. Removal of mature trees in the riparian woodland (e.g., sycamores) may result in impacts to roosting bats if they are present. Impacts include mortality of bats and temporary loss of roost sites. These impacts are considered potentially significant; however, successful implementation of the following measures will reduce impacts to raptors, other nesting birds, and roosting bats and their habitat to a level of less-than-significant.

**Mitigation Measure 5:** To avoid impacts to nesting birds, including raptors, which may occur in the riparian corridor, the City of San Jose, Department of Public Works Parks and Recreation Facilities Division will implement the following measures:

- a. Site grading and other heavy equipment work within the 100-foot riparian setback area shall occur outside the breeding period of bird species, including raptors (e.g., construction should occur after August 1 and before March 15<sup>th</sup>).
- b. If construction must be scheduled during the breeding season, a qualified wildlife biologist, under contract to the City of San Jose, Department of Public Works Parks and Recreation Facilities Division, shall conduct pre-construction surveys for nesting birds, including raptors, to determine if they occur on the site. The surveys shall be conducted by a qualified biologist no earlier than 30 prior to

commencement of grading or construction. If birds, other than raptors, are breeding on the site the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall postpone construction around the nest site until all young have fledged (as determined by the qualified biologist). If raptors are breeding on the site the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall postpone construction within a 300-foot buffer zone (or as determined by the qualified biologist) around the nest site until all young have fledged. The wildlife biologist (under contract to the City of San Jose, Department of Public Works Parks and Recreation Facilities Division) shall document that the young have fledged prior to construction work.

- c. To reduce impacts to roosting bats, a wildlife biologist (under contract to the City of San Jose, Department of Public Works Parks and Recreation Facilities Division) shall survey the trees marked for removal to determine if any provide suitable crevices or hollows for bat roosts. This survey shall be conducted within 60 days prior to scheduled commencement of tree removal. If suitable roost trees are found, have a qualified biologist conduct surveys for bats (i.e., using acoustical equipment or guano traps) to determine if these trees are currently occupied by bats. If bat maternity roosts are found in trees to be removed, schedule tree removal to occur outside the breeding season, as determined by a qualified biologist (e.g. late summer or fall). Prior to tree removal, have a qualified biologist place exclusion devices over the hollows to allow bats to leave the tree, but not be able to return.

#### **Impact 6. Impacts to Trees That Are to Be Retained**

Construction of the trail, bridges and park facilities will occur adjacent to native and non-native trees that are to be retained. Construction activity, such as grading, equipment storage or root disturbances in the dripline of the trees, may compromise tree health.

**Mitigation Measure 6.** To avoid impacts to trees that are slated to be retained the City of San Jose, Department of Public Works Parks and Recreation Facilities Division shall implement the following measures:

- a. The project incorporate tree protection measures to avoid adverse impacts to all trees to be retained on the site during all stages of site construction work. Temporary construction fences shall be erected along the dripline of all retained trees (or tree groupings) that occur adjacent to the construction work area. All construction activities, including storage of construction materials, parking of vehicles and deposition of trash, should be prohibited from these fenced areas. The integrity of the tree-protection fencing should be checked periodically and repaired if damage is noted. The condition of the fencing should be reported to the City of San Jose, Department of Public Works Parks and Recreation Facilities Division at periodic intervals during the construction process.
- b. A construction area shall be delineated on the project plans and in the field such that construction equipment and equipment staging is confined to a designated area (i.e., construction activity does not extend into the northern portion of the park site).
- c. If damage to the trees occurs, a remediation program should be developed by a qualified consulting arborist and implemented; the measures shall be inspected

by the City of San Jose, Department of Public Works Parks and Recreation Facilities Division and a certified arborist to determine the success of the remedial measures.

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**APPENDIX A**  
**BREEDING SEASON AND WINTER SEASON BURROWING OWL SURVEYS**  
**(Prepared by Dana Bland & Associates)**

**BREEDING SEASON SURVEYS  
FOR BURROWING OWLS  
AT MABURY PARK PROJECT SITE  
IN CITY OF SAN JOSE**

*Report Prepared for:*

Biotic Resources Group  
P.O. Box 14  
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Attn: Kathy Lyons

*Report Prepared by:*

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Dana Bland & Associates  
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June 2002

## **Ecology of Burrowing Owls**

The burrowing owl (*Athene cunicularia hypugaea*) is listed as a California Species of Special Concern (California Department of Fish and Game, 2002) and is protected under the Migratory Bird Treaty Act (50 CFR Section 10.12) (California Burrowing Owl Consortium, 1993). Population declines of 50-60% within Central California are due to habitat loss and disturbance.

The burrowing owl is a semi-fossorial bird of prey that inhabits low-growing grassland, prairie, savanna and open areas, often near human habitation (Zarn, 1974). While the species inhabits burrows, it relies on burrows dug by other fossorial mammals, such as ground squirrels and prairie dogs. If no burrows are present, burrowing owls may utilize human made structures such as pipes or culverts (CDFG, 2002). Activity is predominantly crepuscular (dawn and dusk), although burrowing owls frequently perch at or near burrow entrances during the daytime. A site may be used by burrowing owls for breeding, wintering, foraging, and/or during migration (California Burrowing Owl Consortium, 1993). The breeding season extends from February 1 to August 31, with a peak occurring between April 15 and July 15.

## **Project Site Description**

Mabury Park is located near the northwest corner of the Mabury Road and Jackson Avenue intersection. An undeveloped area, approximately 35 acres in size is located on the northwest side of Penitencia Creek. The roads bordering the undeveloped portion are: Commodore Drive, Cape Colony Drive, and Cape Horn Drive. The City of San Jose plans to this area into a playground and pedestrian/bike trail. Surrounding land use is entirely urban residential.

## **Methods**

Four dawn and dusk breeding season burrowing owl surveys were conducted by Maya Conrad in May and June 2002 according to California Burrowing Owl Consortium Survey Protocol (approved by the California Department of Fish and Game). The project site was walked in transects approximately 30 meters apart and potential owl burrows were searched for signs of owl occupation. Signs of occupation may include observations of a burrowing owl, molted feathers, pellets, prey remains, eggshell fragments, and/or excrement at or near a burrow opening (California Burrowing Owl Consortium, 1993). Observations and other species detected during the survey were recorded in a field notebook (Tables 1 and 2).

## **Results**

An unpaved service road transects the undeveloped area between Penitencia Creek, Commodore Drive and Cape Colony Drive. The area surveyed north of the service road had been disked approximately one month prior to the first survey.

No burrowing owls were observed during the four surveys. Table 1 below summarizes the results of the breeding season surveys. The majority of burrows suitable for owls were located on a berm in the northwest corner of the property. Relatively few burrows were observed along the edges of the service road and along the perimeter of the surveyed area. In the southern portion of the undeveloped area,

cobble was observed in some portions and a seasonal drainage ditch from Cape Horn Drive leads into Penitencia Creek. During June, high weeds covered the majority of the survey area.

No signs of burrowing owls were observed during and several of the burrows appeared to be occupied by ground squirrels. Birds and mammals detected during the surveys are listed in Table 2.

Table 1. Results of breeding season burrowing owl surveys at Mabury Park (undeveloped portion), San Jose, California, May-June, 2002.

<i>Date</i>	<i>Time</i>	<i>Weather</i>	<i>Results</i>
5/19/02	0635-0930	Overcast, 62°F, light wind (10 mph)	No burrowing owls detected
6/1/02	1725-2030	Clear, 76°F, breezy (10-15) mph	No burrowing owls detected
6/17/02	0540-0830	Clear, 59°F, calm	No burrowing owls detected
6/23/02	1805-2050	Clear, 70°F, light breeze (5-10 mph)	No burrowing owls detected

**Table 2.** Species detected or observed during burrowing owl surveys at Mabury Park (undeveloped portion), San Jose, California, May-June, 2002.

#### Birds

Mallard	( <i>Anas platyrhynchos</i> )
Gull, unidentified	( <i>Larus</i> sp.)
Rock dove	( <i>Columba livia</i> )
Mourning dove (juveniles observed)	( <i>Zenaida macroura</i> )
Anna's hummingbird	( <i>Calypte anna</i> )
Black phoebe	( <i>Sayornis nigricans</i> )
Western scrub-jay	( <i>Aphelocoma californica</i> )
Barn swallow	( <i>Hirundo rustica</i> )
Bushtit	( <i>Psaltiriparus minimus</i> )
Northern mockingbird	( <i>Mimus polyglottos</i> )
European starling	( <i>Sturnus vulgaris</i> )
Western tanager	( <i>Piranga ludoviciana</i> )
California towhee	( <i>Pipilo crissalis</i> )
Red-winged blackbird	( <i>Agelaius phoeniceus</i> )
Brewer's blackbird	( <i>Euphagus cyanocephalus</i> )
House finch (juveniles observed)	( <i>Carpodacus mexicanus</i> )
American goldfinch	( <i>Carduelis tristis</i> )

#### **Mammals**

California ground squirrel	( <i>Spermophilus beecheyi</i> )
Botta's pocket gopher	( <i>Thomomys bottae</i> )
Domestic cat	( <i>Felis domestica</i> )

## Discussion

Although no burrowing owls were detected during the survey period, it is recommended that a non-breeding winter survey (between December 1<sup>st</sup> and January 31<sup>st</sup>) is conducted to determine whether the site is being used as a non-breeding site for winter resident burrowing owls. Additionally, a pre-construction burrowing owl survey may be required by the California Department of Fish and Game 30 days prior to construction.

## References

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**WINTER SURVEYS  
FOR BURROWING OWLS  
AT MABURY PARK PROJECT SITE  
IN CITY OF SAN JOSE**

*Report Prepared for:*

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Attn: Kathy Lyons

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January 2003

## **Project Site Description**

Mabury Park is located at the southwest corner of Commodore Drive and N. Jackson Avenue intersection, north of Mabury Road. An undeveloped area several acres in size is located on the north side of Penitencia Creek. The roads bordering the undeveloped portion are: N. Jackson Avenue, Commodore Drive, Cape Colony Drive, and Cape Horn Drive. The City of San Jose plans to develop this area into a playground and pedestrian/bike trail. Surrounding land use is entirely urban residential, with a small County park at the northwest corner of Mabury Road and N. Jackson Avenue, on the south side of Penitencia Creek.

## **Methods**

Four dawn and dusk winter season burrowing owl surveys were conducted by Dana Bland in December 2002 and January 2003 according to California Burrowing Owl Consortium Survey Protocol (approved by the California Department of Fish and Game). The project site was walked and potential owl burrows were searched for signs of owl occupation. Signs of occupation may include observations of a burrowing owl, molted feathers, pellets, prey remains, eggshell fragments, and/or excrement at or near a burrow opening (California Burrowing Owl Consortium 1993). The area surveyed included all grassland areas from the corner of N. Jackson Avenue and Commodore Drive, and proceeding west to the intersection of Penitencia Creek with King Road, on both sides of Penitencia Creek. Observations of wildlife species detected during the survey were recorded in a field notebook.

## **Ecology of Burrowing Owls**

The burrowing owl (*Athene cunicularia hypugaea*) is listed as a California Species of Special Concern (California Department of Fish and Game 2002) and is protected under the Migratory Bird Treaty Act (50 CFR Section 10.12) (California Burrowing Owl Consortium 1993). Population declines of 50-60% within Central California are due to habitat loss and disturbance.

The burrowing owl is a semi-fossorial bird of prey which inhabits low-growing grassland, prairie, savanna and open areas, often near human habitation (Zarn 1974). While the species inhabits burrows, it relies on burrows dug by other fossorial mammals, such as ground squirrels and prairie dogs. If no burrows are present, burrowing owls may utilize human made structures such as pipes or culverts (CDFG 2002). Activity is predominantly crepuscular (dawn and dusk), although burrowing owls frequently perch at or near burrow entrances during the daytime. A site may be used by burrowing owls for breeding, wintering, foraging, and/or during migration (California Burrowing Owl Consortium 1993). The breeding season extends from February 1 to August 31, with a peak occurring between April 15 and July 15. Wintering burrowing owls are usually present at their winter sites between December 1 and January 31.

## **Results**

An unpaved service road transects the undeveloped area between Penitencia Creek, Commodore Drive and Cape Colony Drive. The grassland area surveyed north of the service road had been disced earlier in



the summer of 2002, and grasses less than 1 foot tall were growing there in winter. Most of the grassy areas between Cape Colony Drive and King Road on both sides of Penitencia Creek were 1-1.5 feet high during the winter surveys. The grass areas in the County park at the corner of N. Jackson Avenue and Mabury Road are turf grass that is regularly mowed.

No burrowing owls were observed during the four surveys. Table 1 below summarizes the results of the winter season surveys. The majority of burrows suitable for owls were located on a small hill at the corner of N. Jackson Avenue and Commodore Drive. Very burrows were observed along the edges of the service road and along the perimeter of the surveyed area. In the southern portion of the undeveloped area, cobble was observed in some portions, and a seasonal drainage ditch from Cape Horn Drive leads into Penitencia Creek.

No signs of burrowing owls were observed during the surveys. Birds and mammals detected during the surveys are listed in Table 2.

**Table 1.** Results of winter season burrowing owl surveys at Mabury Park, San Jose, California, December 2002 and January 2003.

<i>Date</i>	<i>Time</i>	<i>Weather</i>	<i>Results</i>
12/24/02	0710-0950	Cloudy, 40°F, calm	No burrowing owls detected
12/30/02	0710-0855	Cloudy, 47°F, wind 1-2mph, sprinkles at end	No burrowing owls detected
01/15/03	0745-0945	Overcast, 53°F, calm	No burrowing owls detected
01/19/03	0720-0920	Dense fog, 43°F, calm	No burrowing owls detected

**Table 2.** Species detected or observed during burrowing owl surveys at Mabury Park, San Jose, California, December 2002 – January 2003.

#### Birds

Pied-billed grebe	( <i>Podilymbus podiceps</i> )
Snowy egret	( <i>Egretta thula</i> )
Mallard	( <i>Anas platyrhynchos</i> )
American coot	( <i>Fulica americana</i> )
Domestic goose	( <i>Anser domesticus</i> )
Canada goose	( <i>Branta canadensis</i> )
Killdeer	( <i>Charadrius vociferus</i> )
Gull, unidentified	( <i>Larus</i> sp.)
red-tailed hawk	( <i>Buteo jamaicensis</i> )
red-shouldered hawk	( <i>Buteo lineatus</i> )
American kestrel	( <i>Falco sparverius</i> )
rock dove	( <i>Columba livia</i> )
Mourning dove	( <i>Zenaida macroura</i> )
Anna's hummingbird	( <i>Calypte anna</i> )
Nuttall's woodpecker	( <i>Picoides nuttallii</i> )
Northern flicker	( <i>Colaptes auratus</i> )

Black phoebe	( <i>Sayornis nigricans</i> )
Western scrub-jay	( <i>Aphelocoma californica</i> )
Bushtit	( <i>Psaltiriparus minimus</i> )
American robin	( <i>Turdus migratorius</i> )
Northern mockingbird	( <i>Mimus polyglottos</i> )
Cedar waxwing	( <i>Bombycilla cedrorum</i> )
European starling	( <i>Sturnus vulgaris</i> )
California towhee	( <i>Pipilo crissalis</i> )
white-crowned sparrow	( <i>Zonotrichia leucophrys</i> )
golden-crowned sparrow	( <i>Zonotrichia atricapilla</i> )
Red-winged blackbird	( <i>Agelaius phoeniceus</i> )
House finch	( <i>Carpodacus mexicanus</i> )
House sparrow	( <i>Passer domesticus</i> )

### **Mammals**

western gray squirrel	( <i>Sciurus griseus</i> )
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### **Discussion**

No burrowing owls were detected during the winter survey period and none were observed during a breeding season survey in 2002. No signs of burrowing owls at any of the burrows were observed during either the breeding season 2002 or winter season 2002-03 surveys. Based on the survey results, burrowing owls do not currently inhabit the Mabury Park project site.

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**APPENDIX B**  
**RESULTS OF TREE SURVEY**  
**(Prepared by City of San Jose and Biotic Resources Group)**

## Tree Survey, Master Plan for Mabury Park and Penitencia Creek Park Chain Reach 6

Are existing trees on the project site to be removed as part of the project? No ☐ Yes ☒

Are existing trees on the project site to be retained and incorporated as part of the project landscaping? ☐ No ☒ Yes

Is grading on the project site to occur within the dripline of existing trees to be retained? No ☐ Yes ☒

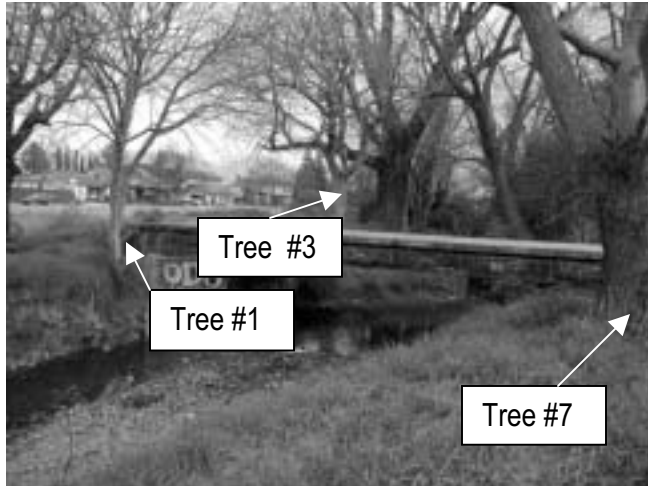
Number	Tree Species	Size (diameter in inches)	Ordinance- Sized Tree?	Tree to be Removed?	Condition of Tree	Tree to be Retained?
<b>Bridge #1 (Cape Diamond Drive)</b>						
1	Buckeye	4,4,5	N	N	Good	Y, trimmed
2	Walnut	24	Y	N	Good	Y, trimmed
3	Sycamore	24	Y	N	Good	Y
4	Walnut	30	Y	N	Good	Y
5	Cottonwood	32	Y	N	Good	Y
6	Willow	14	N	N	Fair	Y, trimmed
Summary				None		All
<b>Bridge #4 Weir Crossing</b>						
7	Buckeye	2,6,4,4,3	N	N	Good	Y
8	Coast Live Oak	36	Y	N	Good	Y
9	Buckeye	22,10,3,2	Y	N	Good	Y
10	Cottonwood	24,12	Y	N	Good	Y
11	Cottonwood	56	Y	N	Good	Y
Summary				None		All
<b>Bridge #2 Mabury Road</b>						
12	Coast Live Oak	36	Y	N	Good	Y
13	Coast Live Oak	30	Y	N	Good	Y
14	Elderberry	8,4,4,6	N	Y	Good	N
15	Walnut	30	Y	Y	Good	N
16	Walnut	24,24	Y	Y	Good	N
17	Buckeye	2,4,5,9,10	N	Y	Good	N
18	Walnut	21,20	Y	Y	Good	N
19	Walnut	10	N	N	Good	Y
20	Cottonwood	16	N	N	Good	Y
21	Walnut	30	Y	N	Good	Y
22	Coast Live Oak	8	N	N	Good	Y
23	Walnut	10	N	N	Good	Y
Summary				5 trees		7 trees
<b>Bridge #3 Flood Control Crossing</b>						
None	None	0	NA	NA	NA	NA
Summary				None		None
Number	Tree Species	Size	Ordinance-	Tree to be	Condition of	Tree to be

		(diameter in inches)	Sized Tree?	Removed?	Tree	Retained?
<b>Bridge #5 Flood Control Crossing</b>						
None	None	0	NA	NA	NA	NA
Summary				None		None
<b>Bridge #6 Mossdale Way</b>						
24	Sycamore	58	Y	N	Good	Y
25	Cottonwood	14	Y	N	Good	Y
26	Walnut	10,12	N	Y	Good	N
27	Walnut	10	N	Y	Good	N
28	Eucalyptus	55	Y	N	Good	Y
Summary				2 trees		3 trees
<b>Trail at North King Road</b>						
29	Cottonwood	24	Y	N	Good	Y, trimmed
30	Sycamore	8	N	N	Good	Y
31	Sycamore	48	Y	N	Good	Y
32	Coast Live Oak	5	N	N	Good	Y
33	Walnut	10	N	N	Good	Y
34	Walnut	26	Y	N	Good	Y
35	Sycamore	6,7,12,13	N	N	Good	Y, trimmed
Summary				None		None
<b>Total Trees Removed</b>				<b>7 trees</b>		
<b>Trees in Remainder of Project Area</b>						
Species	Diameter ≥ 18"	Diameter < 18"	Tree to be Removed?		Tree to be Retained?	
Cottonwood	98	88	N		Y	
Walnut	50	40	N		Y	
Coast Live Oak	12	48	N		Y	
Blue Elderberry	0	44	N		Y	
Buckeye	0	11	N		Y	
Prunus	0	2	N		Y	
California Bay	0	2	N		Y	
Sycamore	2	8	N		Y	
Pepper Tree	1	0	N		Y	
Eucalyptus	3	0	N		Y	
Landscape Trees (unknown species)	5	56	N		Y	
Tree of Heaven	0	10	N		Y	
<b>Totals</b>	<b>189</b>	<b>327</b>	<b>None</b>		<b>All</b>	

Source: City of San Jose (2001) and Biotic Resources Group (2002)

ARE THERE HERITAGE TREES ON THE PROJECT SITE?

No ☒ Yes ☐



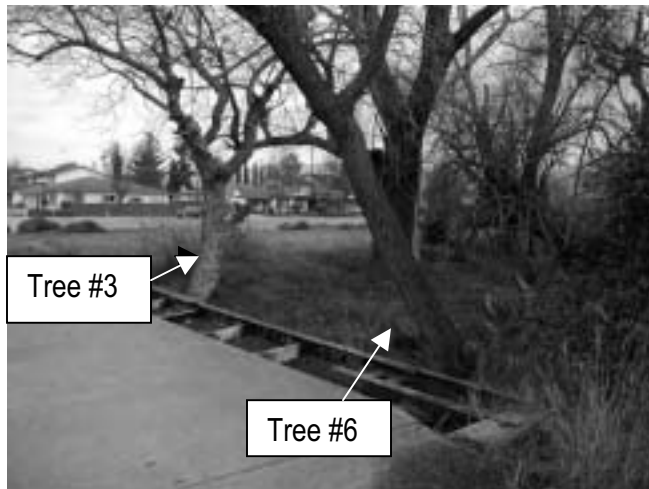
Bridge #1. View of existing bridge, looking upstream from south bank. Trees 1, 3 and 7 are depicted around the bridge. Trees are to be retained



Bridge #1. View of Tree #7 along edge of existing bridge; tree to be retained during construction of new bridge, however limbs will be removed



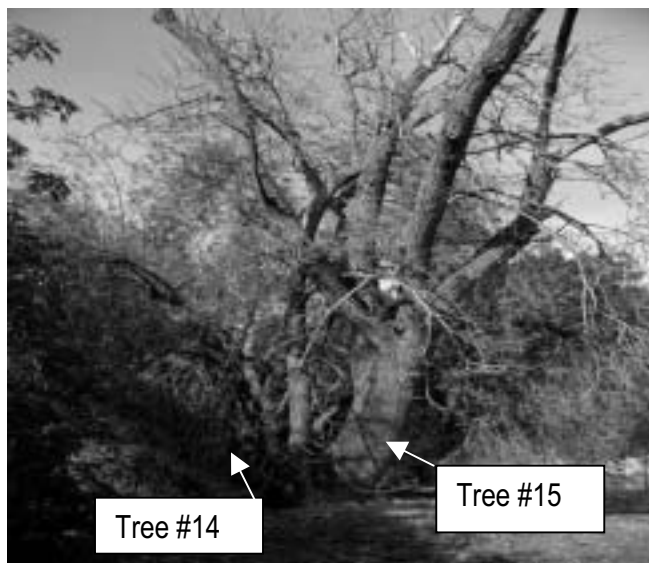
Bridge #1, View of Trees #1 and 2. Tree to be retained during construction of new bridge, however limbs will be removed from Tree #1.



Bridge #1. View of Trees 3 and 6. Tree #3 is to be retained during construction of new bridge, however limbs will be removed. Tree 6 is a willow located at the existing bridge footing; this tree will be removed



Bridge #2. View of Trees 12 and 13, two coast live oaks on north side of Penitencia Creek. Trees are to be retained



Bridge #2. View of Trees 14 and 15 along south side of Penitencia Creek. Both trees (14 – elderberry and 15 - walnut) will be removed for bridge and trail



Bridge #2. View of Tree 16, a double walnut. Trees are to be removed for bridge and trail.



Bridge #2. View of Tree 18, a walnut in poor condition; bridge and trail work will remove this





Bridge #2. View of Tree 20. Tree will be retained.



Bridge #4. View of Tree 11 (cottonwood); tree to be retained.



Bridge #4. View of Tree 10  
(cottonwood); tree to be retained.



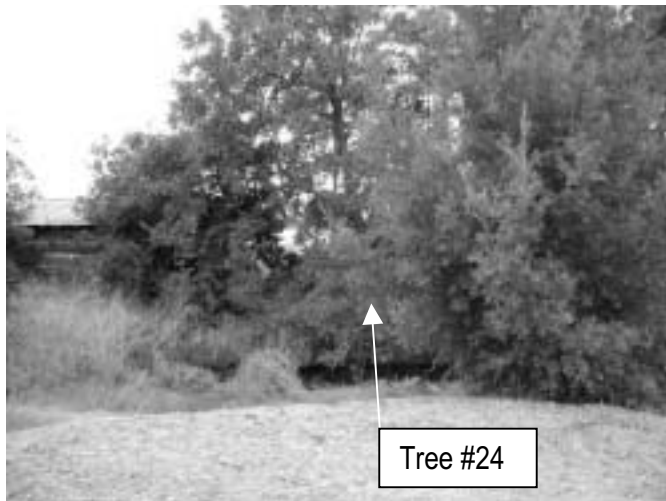
Bridge #4. View of Tree 8 (coast  
live oak); tree to be retained.



Bridge #4. View of Tree 9  
(buckeye); tree to be retained.



Bridge #4. View of Tree 7 (buckeye);  
tree to be retained.



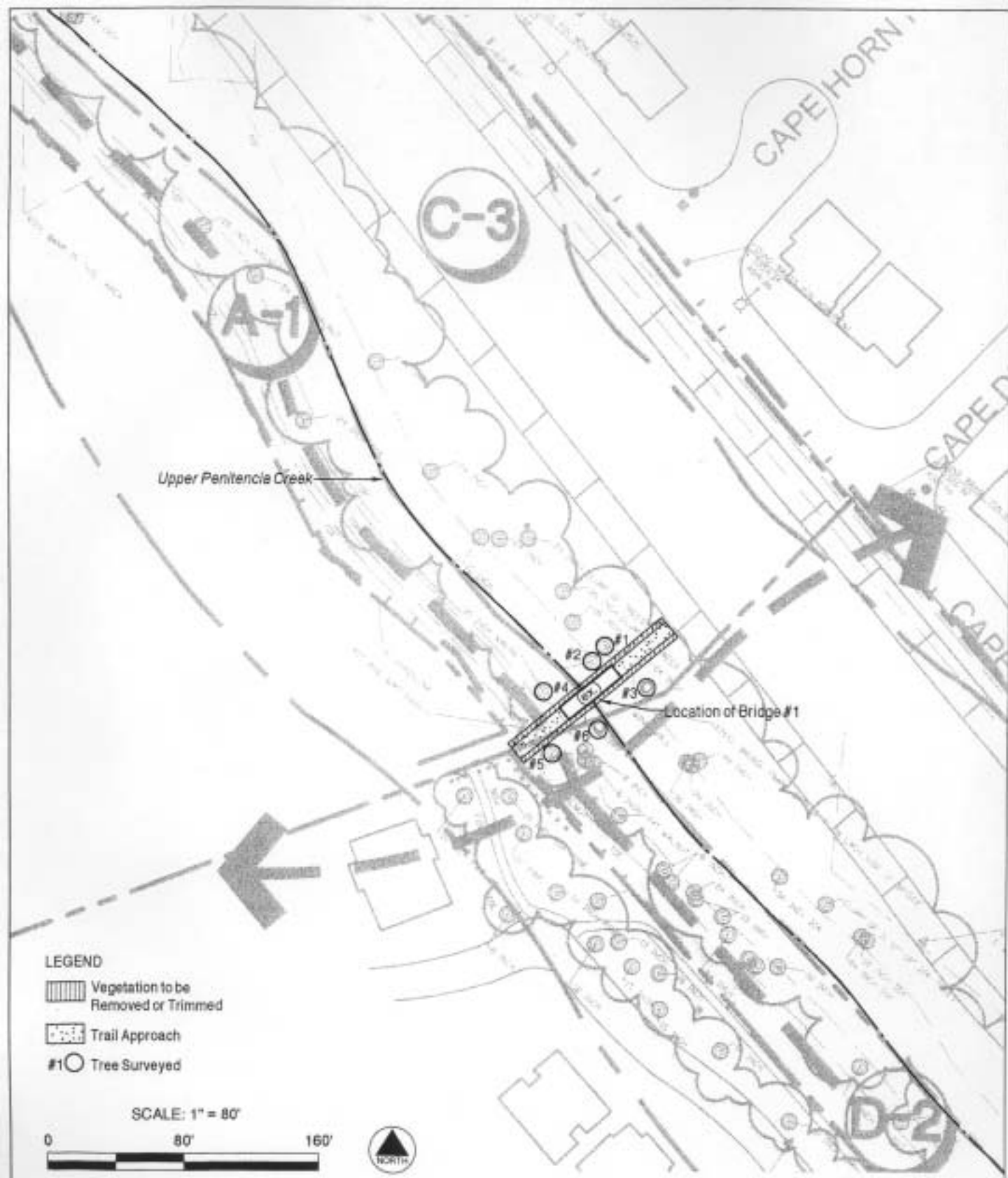
Bridge #6. View of bridge site and tree 24 along north side of creek; trees to be retained but limbing will occur to provide bridge clearance.



Trees 29 and 35 along trail north of creek, just upstream of North King Road; trees to be retained.



View of existing SCVWD maintenance road along south side of creek, just upstream of North King Road. This road is proposed to be used as a Phase 1 pedestrian

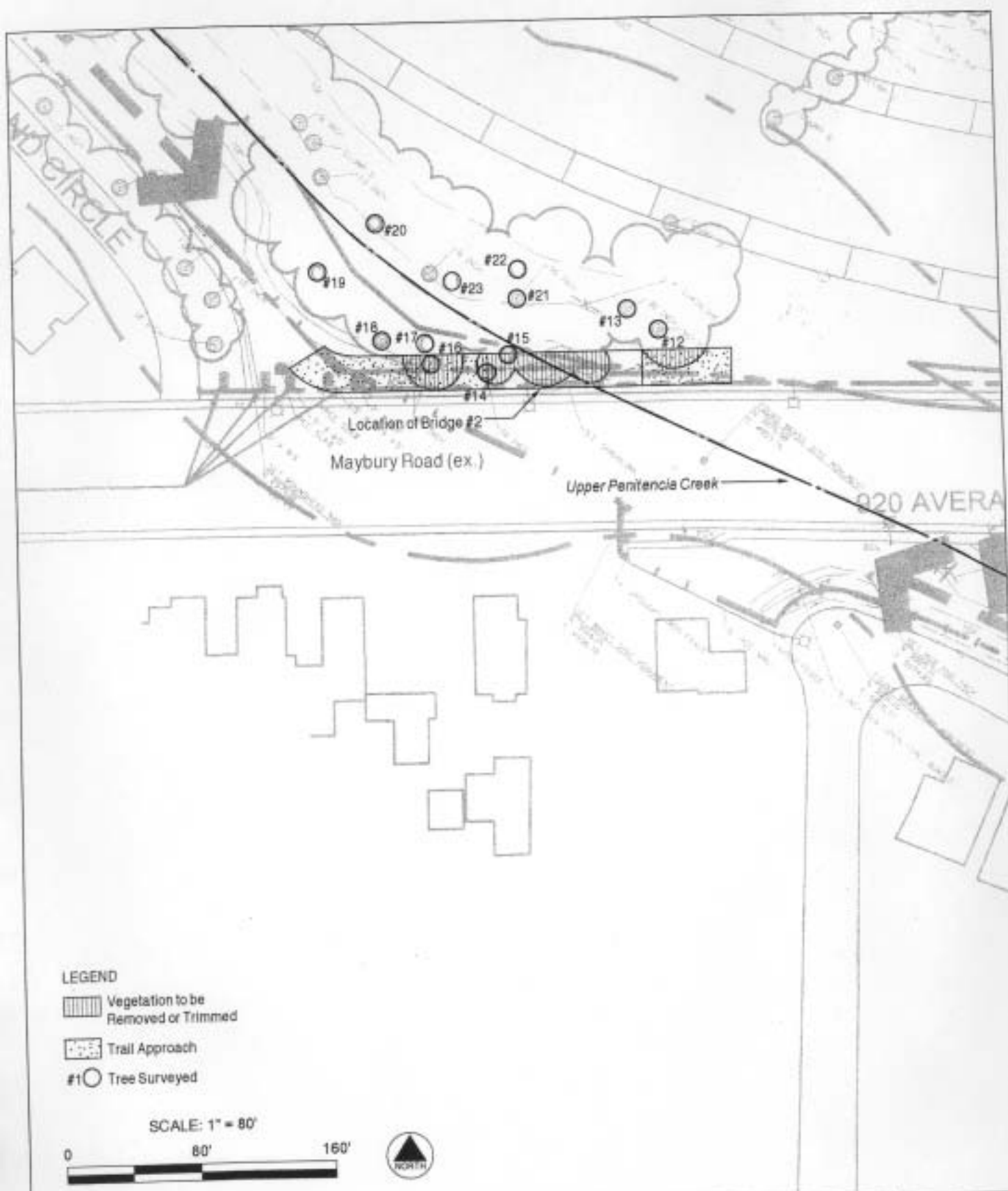


## Biotic Resources Group

Post Office Box 14 • Santa Cruz, California 95063  
(831) 476-4803 • Fax (831) 476-8038

Master Plan for Mabury Park,  
Penitencia Creek Park Chain Reach 6  
Tree Survey - Bridge #1

Figure B-1  
11/02  
283-01

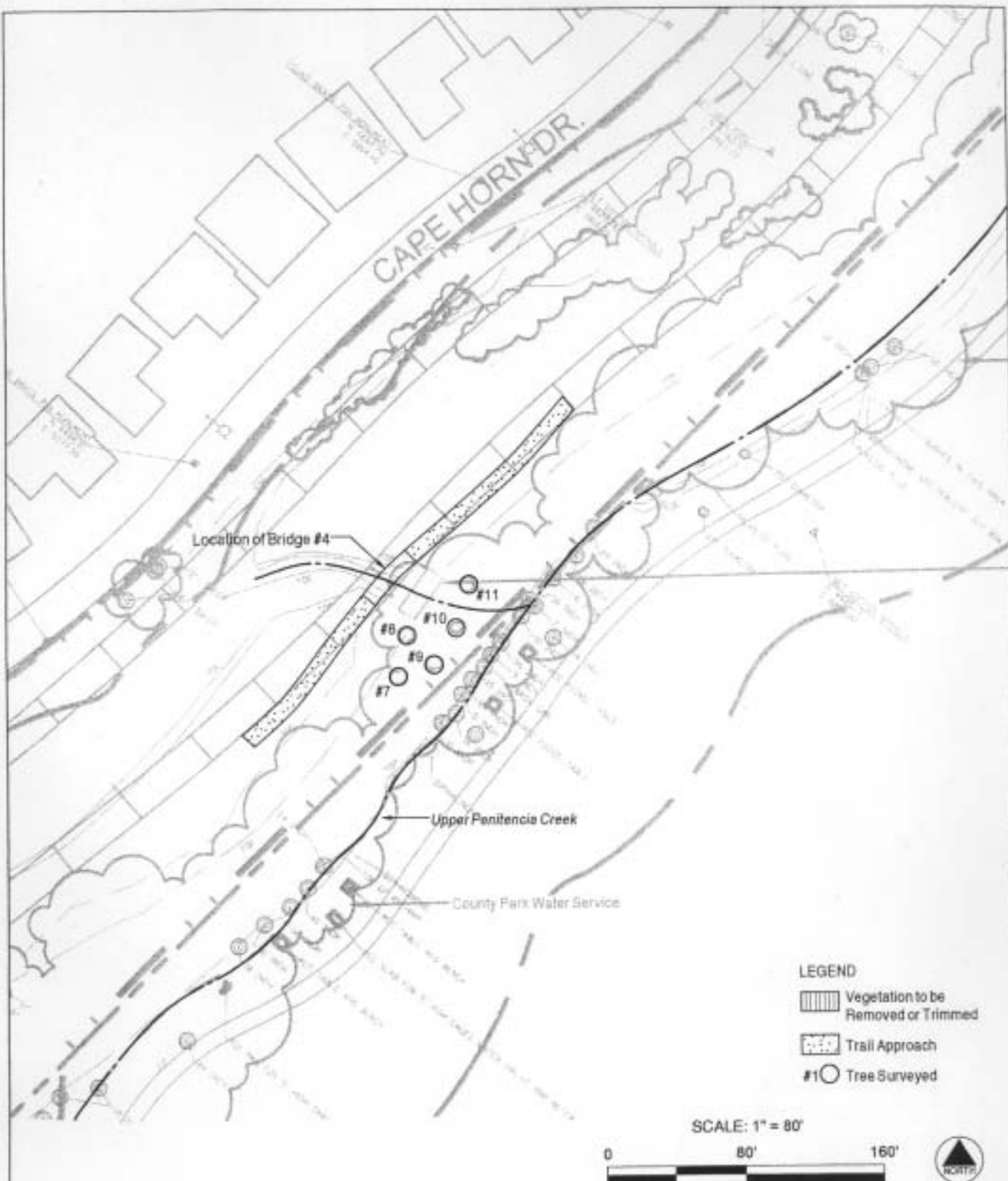


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Master Plan for Mabury Park,  
Penitencia Creek Park Chain Reach 6  
Tree Survey - Bridge #2

Figure B-2  
11/02  
283-01



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Master Plan for Mabury Park,  
Penitencia Creek Park Chain Reach 6  
Tree Survey - Bridge #4

Figure B-3  
11/02  
283-01



F-1

900 AVERAGE VOLUME @ P.H.

Existing Jackson Street Bridge

AGRICULTURE

Location of Bridge #5

Location of Bridge #6

#24

#26

#28

#25

#27

Upper Penitencia Creek

MOSSDALE WAY

North Jackson Avenue

Existing Penitencia Creek Trail  
Connecting to Alum Rock Park

Existing Stop Sign

LEGEND

Vegetation to be  
Removed or Trimmed

Trail Approach

#1 Tree Surveyed

SCALE: 1" = 80'



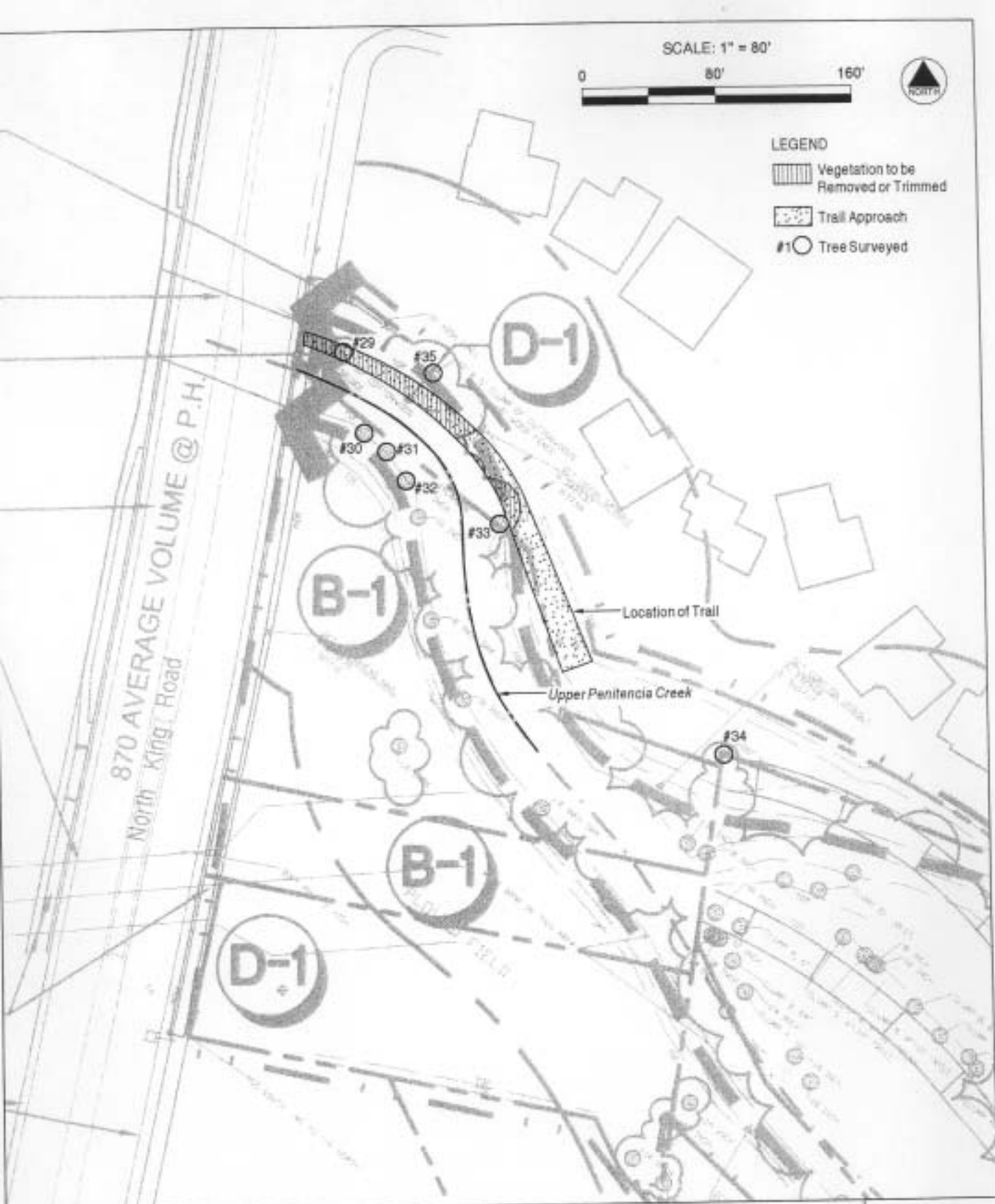
**Biotic Resources Group**

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(831) 476-4803 • Fax (831) 476-8038

Master Plan for Mabury Park,  
Penitencia Creek Park Chain Reach 6  
Tree Survey - Bridges #5 and #6

Figure B-4  
11/02  
283-01





## Biotic Resources Group

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(831) 476-4803 • Fax (831) 476-8038

Master Plan for Mabury Park,  
Penitencia Creek Park Chain Reach 6  
Tree Survey - Spur Trail at North King Road

Figure B-5  
11/02  
283-01

**APPENDIX C**  
**GUIDELINES OF RIPARIAN REVEGETATION**

## **MASTER PLAN FOR MABURY PARK, PENITENCIA CREEK PARK CHAIN REACH 6**

### **GUIDELINES FOR RIPARIAN REVEGETATION**

#### **PLANTING OPERATIONS**

The City shall implement the following tasks for installing plant materials:

1. Prior to site work, the City's Landscape Contractor shall layout plant materials, while still in containers or as flagged locations in the field. The City shall review and approve all planting locations prior to site work.
2. The City's Landscape Contractor shall be responsible for supplying plants of the species and size specified and delivery of the plant material to the site (see planting list). The City shall review and approve all plant materials, prior to their installation. The City's Landscape Contractor shall be responsible for any replacement of plant material if said material is in poor condition and rejected by the City.
3. The City's Landscape Contractor shall ensure that all plants are true to name, with one plant in each bundle or lot tagged with the botanical name and plant size, in accordance to the standards of practice recommended by the American Association of Nurserymen.
4. All plants shall be the genus, species, and sizes shown on the plans. Under no conditions, will there be any substitution of plants or sizes, except with the express written consent of the City. If the specified plant material is not available, the City's Landscape Contractor shall secure suitable substitution materials in a timely fashion to meet the project schedule.
5. Existing vegetation that is not within the limits of the project area shall not be cut, removed or otherwise disturbed.
6. Planting of container stock shall occur after rain has moistened the ground to a minimum depth of 8" and more rain is forecast (typically November through January). Planting shall not occur while soil moisture is at or above saturation capacity, nor while heavy rain is falling, or extremely windy conditions prevail.
7. Container stock plants shall be installed in areas designated for planting. Plants shall be installed by excavating a planting hole large enough to receive the rootball. All planting holes shall be backfilled with native soil and tamped. Plantings shall be watered in such that the root crown is even with the surrounding grade. A 3" high hand-packed soil berm shall be constructed around the plant (or just along the down slope edge for the creek bank plantings) to create a watering basin. If soil is not moist to 14" from natural rainfall, the plant shall be hand watered immediately following installation. After planting is complete, the City's Landscape Contractor shall furnish and spread shredded mulch in the planting basin and install the plant protection cage, as shown on the detail.

#### **EROSION CONTROL SEEDING**

The City shall implement the following tasks for erosion control seeding:

1. The city shall be responsible for the application of seed, mulch, fertilizer and tackifier on all disturbed areas.
2. The location of the seeding areas may be adjusted in the field at the direction of the City. The City's Landscape Contractor shall take care to install seed and related materials to provide optimum growth

conditions and maximum aesthetics. Seeded material shall not be installed to obstruct drainage patterns or harm existing plant material.

3. Seeding shall occur following all site work and when the seedbed has been prepared. Seeding shall occur in October 2000, prior to October 15<sup>th</sup> and when rain is forecast.
4. Seeding shall consist of a 2-step hydroseeding process, applied by a professional hydroseeder. Seed, fertilizer, mulch, and tackifier will be sown at the rate specified on the plans. Prior to hydroseeding, the seed mixture will be pre-mixed by a mechanical mixer. Prior to the application of the hydroseed/mulch mixture, the applicator will clean and rinse all equipment to preclude the application of weeds or other species not intended for the site.
5. The hydroseeding application will follow a two-step process: 1) Hydro-spray seed and 500 lbs./acre of hydraulic fiber mulch and 2) Apply 1500 lbs./acre hydraulic fiber mulch, fertilizer and tackifier.

## MAINTENANCE

The City shall implement the following tasks for maintenance of the revegetation areas:

1. Work shall include, but is not limited to, maintenance of plant materials, plant basins, plant protection devices, watering and weeding necessary to keep the plant materials in a healthy, growing conditions and keep the plant areas neat throughout a 5-year maintenance period. The City's Landscape Contractor shall not prune plant material unless otherwise directed by the City.
2. All weeds shall be removed from the container stock planting basins throughout the first three years of the 5-year maintenance period. The plants will be removed in order to reduce competition for available nutrients, moisture, and sunlight. Plants shall be hand-pulled. All weed control shall be done in a manner that protects the revegetation plants. Weeds that grow within the planting basins shall be controlled when they reach a height of 4" or cover 20% of the planting basin. Weeding shall consist of bagging and removal of weed plants from the project site. No pre-emergent herbicides shall be allowed.
3. The City's Landscape Contractor shall maintain the plant protection in functional and secure order throughout the maintenance period. Plant protection shall be removed by the City's Landscape Contractor and disposed off site either at 1) following the presence of leaves or branches of the plant materials at least 1" through the fencing, or 2) at the end of the contract period, under direction of the City.
4. If invasive, non-native plant species establish within the revegetation areas, controls shall be implemented to prevent the infestations from developing and to further enhance survival of the planted species. Invasive, non-native plant species that occur, or may establish on the site, include yellow star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), French broom (*Genista monspessulana*), castor bean (*Ricinus sp.*). Hand removal shall be utilized to remove and control the occurrence of these species. All removed plant materials will be bagged and discarded off-site.
5. Special Control of Yellow Star Thistle and Italian Thistle: Infestations of yellow star thistle and Italian thistle shall be removed from the riparian revegetation areas for the duration of the maintenance period (5 years). During the early spring of each maintenance year (i.e., February/March), the project site shall be walked by the City such that the location of star thistle and/or Italian thistle can be identified. At this time, all (100%) individuals of these two thistle species shall be removed through hand hoeing (Italian thistle) and hand pulling (star thistle), with all plant materials bagged and removed from the site. Hand hoeing shall sever the root a minimum of 4 inches below the ground surface. Hand pulling shall removal the root of the plant. Subsequent site maintenance visits shall be conducted in late spring (April and May) and summer (June and July) wherein thistle individuals shall be removed. The goal of the maintenance actions will be to remove all star thistle and Italian thistle plants from the project area prior to their development of flowering heads.
6. Supplemental watering shall be implemented for the container stock plantings. This work shall include watering by hand (using truck watering) or by an irrigation system (i.e., drip or bubbler system). Plants

shall be watered no less than once a week during May, June, July, August and September of Years 1 and 2. Approximately 10 gallons of water shall be applied to each container stock planting at each watering event. Watering may be reduced to twice a month in Year 3. Each watering shall be of such a quantity as to provide optimum growth conditions. If drought stress or chlorosis is noted on any of the plantings, the quantity and interval of watering will be increased.

7. If an unusual drought occurs in other months (i.e., less than 70% of normal rainfall between October and May) such that soil moisture drops to a level where plant survival is compromised, supplemental irrigation shall be initiated. Supplemental irrigation shall be continued until natural rainfall levels replenish soil moisture.
8. The City's Landscape Contractor shall record all maintenance activities and observations in a monthly maintenance logbook.

## **MONITORING**

The City shall implement the following tasks for monitoring of the revegetation areas:

1. The City shall conduct monitoring of the revegetation areas during the summer in the first 5 years following plant installation. All plants installed shall be counted and monitored for survival, health and vigor.
2. Photo-documentation shall be employed to record progress of the revegetation. Data from the site visits shall be incorporated into an Annual Monitoring Report that shall be submitted to the California Department of Fish and Game at the end of the each years monitoring. The report shall state whether the project revegetation has been successful and if any remedial measures are required.
3. The project shall be deemed successful when the project achieves:
  - § 80% survival of container stock each year
  - § No evidence of erosion or rilling along the creek bank.
4. The City's shall be responsible for assuring the survival of a minimum of 80% of the container stock within each year (for 5 years). If survival rates drop below this level, the City shall replant the failed plantings. Species substitutions are acceptable if the replacement species meet the goal of riparian revegetation.

## Attachment 7

### Photographs of the Site

# *Site Photos*

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*Foot bridge over Penitencia Creek looking north to Cape Horn Drive*



*View of site from the Cape Horn / Cape Diamond intersection looking south*

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## MASTER PLAN FOR MABURY PARK /

**Callander Associates**  
Landscape Architecture

Penitencia Creek Park Chain Reach 6

*City of San Jose*

November 9, 2001  
00.032

# *Site Photos*

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*Under North Jackson Avenue bridge looking east*

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## MASTER PLAN FOR MABURY PARK /

**Callander Associates**  
Landscape Architecture

November 9, 2001  
00.032

Penitencia Creek Park Chain Reach 6

*City of San Jose*



# *Site Photos*

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*Penitencia Creek riparian vegetation*

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## MASTER PLAN FOR MABURY PARK /

**Callander Associates**  
Landscape Architecture

November 9, 2001  
00.032

Penitencia Creek Park Chain Reach 6

*City of San Jose*

# Site Photos

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*View from Cape Horn / Cape Colony Drive intersection  
looking east to North Jackson Avenue*



*View from Cape Horn / Cape Colony Drive intersection  
looking east to North Jackson Avenue*

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## MASTER PLAN FOR MABURY PARK /

**Callander Associates**  
Landscape Architecture

Penitencia Creek Park Chain Reach 6

***City of San Jose***

November 9, 2001  
00.032

# *Site Photos*

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*View looking south from North King Road along Penitencia Creek*



*Foot bridge over penitencia creek along North King Road looking south*

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## MASTER PLAN FOR MABURY PARK /

**Callander Associates**  
Landscape Architecture

Penitencia Creek Park Chain Reach 6

*City of San Jose*

November 9, 2001  
00.032



# Site Photos

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*View looking east from the middle of the site near Education Park / Mabury Road intersection*



*View looking west from the upstream river crossing of Mabury Road*

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## MASTER PLAN FOR MABURY PARK /

**Callander Associates**  
Landscape Architecture

Penitencia Creek Park Chain Reach 6

*City of San Jose*

November 9, 2001  
00.032